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ORIGINAL ARTICLES.

THE CITY AND ITS CONSUMPTIVE POOR: A PLEA FOR A MUNICIPAL SANATORIUM OUTSIDE OF THE CORPORATE LIMITS.¹

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OF NEW YORK.

It is just one year since I had the honor of addressing you upon the subject of the State care of the consumptive poor, and of pointing out to you the worthy example of Massachusetts that had been so splendid a pioneer in this work and in this country. Since then, those interested in the welfare of this unfortunate and neglected class of patients have had abundant cause for rejoicing in that the State of New York was finally induced at the last session of the legislature to commit itself to the principle of State aid by the appropriation of \$50,000 for a State sanatorium. The commission appointed by the Governor to select a site has worked hard and conscientiously during the summer. Twenty-six available sites at widely-distant points in the Adirondacks were inspected and quite recently a decision was finally made in favor of Lake Clear. In spite of delay caused by the opposition which has developed against this site, there is a strong probability that within the next eighteen months the State of New York will have reared its first sanatorium for the cure of incipient tuberculosis, and, by so doing, will have increased very greatly the probability of similar institutions in every State of the Union, and both directly and indirectly strengthened the forces that are arrayed against this disease.

It is not generally known, even to members of the medical profession, that the first organized effort for a separate city institution for consumptive poor dates back to 1855, when a society, with Peter Cooper as president and Dr. Alonzo Clark and other well-known citizens as trustees, was chartered by the State and issued "An Appeal to the Inhabitants of the City and State of New York." The arguments used were almost identical with the ones used to-day.

(1) Humanitarian—"The hospital is found a truthful exponent of the Christian sentiment of the people."

(2) Inadequacy of the then existing provision—"For the victim of consumption there is no suitable refuge whatever, but, had the existing institutions abundant room for and were they in a position to receive all the cases of consumption

which might apply, still there would remain the serious objection that they are not properly adapted to this purpose; that they cannot supply those means and appliances requisite for the satisfactory and enlightened treatment of this disease."

(3) Immensity of the problem, consumption taking the first rank as an agent of death, and removing the subject mainly in a productive period of life.

(4) Value of light, air, exercise, and diet, and the hopelessness of obtaining these for many cases in the "narrow confines of the dwellings ordinarily inhabited by them."

(5) Improved opportunity for studying the disease scientifically among large numbers, and thus eliminating the chance causes.

(6) Existence of such special hospitals in England.

From the charter we learn further that the hospital was to be established within ten or fifteen miles of New York City and that it was to have power to hold real and personal estate to an amount not exceeding \$250,000. To these arguments of forty-five years ago the modern advocates of municipal aid have been able to add a number of others, all more or less related. Among these are: (1) The earlier recognition of the disease by bacteriological methods; (2) the greater hopefulness of arresting its progress; (3) the danger of infection.

The subject to which I invite your attention this evening is closely related to that discussed last year. There is this important difference however: Then, the object was to enlarge the State's responsibility for the indigent consumptive; my object to-night is to urge the need of greater responsibility on the part of the City. Under the law of 1899 this certainly appears justifiable from a medical point of view. Permit me to quote from the law: "Any municipal corporation, having a population, according to the last State census, of 250,000 or more inhabitants, shall have the power, whenever its Board of Health shall deem it necessary for the promotion of the health of its inhabitants, to establish, equip and maintain, outside of its corporate limits, and at such place or places within the State of New York and not within the corporate limits of any other municipal corporation, as may be determined upon under the provisions of this Act, a hospital or hospitals for the regular treatment of the disease known as pulmonary tuberculosis."

No one, certainly no medical man, will deny the advantage to the incipient consumptive if the City should avail itself of the authority granted by this law to acquire suitable territory outside

¹ Read before the Section on Medicine of the New York Academy of Medicine, October 23, 1900.

of its corporate limits and to send the patient there for treatment instead of sending him to the public institutions within the city. In certain quarters a notion has prevailed that no steps were taken under the law of 1899 because of a supposed conflict of authority between the Department of Charities and the Department of Health, or rather because the law placed the selection of the site and the construction and equipment of the hospital in the hands of the Department of Health in place of the Department of Public Charities. Nothing is further from the truth. The Department of Health stands ready to assume the labor and responsibility connected with the work, while the Department of Charities both admits the need of the work and its acquiescence in the law as it now stands. In the course of the discussion this evening, you will, I believe, hear a confirmation of this statement in the personal evidence of officers of these two departments. In fact, both departments are thoroughly imbued with the importance of the subject, and while they deplore the vastness of the problem they also admit the incalculable benefit that would accrue to the healthy and the sick alike by an extension of the work along the lines indicated in the title of my paper.

The main obstacle to action under this law has been the fear of expense. The bugaboo of expense. There is a certain immortality in this argument that would almost lead one to believe it were possessed of a soul—but there never was a more soulless argument. Still it is forever bobbing up to obstruct improvements and reforms, and though it has been knocked in the head hundreds of times in the past and in connection with other matters affecting the welfare of the municipality and its citizens, it reappears with the serenity and the dignity and the glory of a newborn thought, but with a doggedness worthy of a better cause.

What would we think of a man who would advocate to-day a return to the old system of a volunteer fire department in the place of our present paid force, merely because it was cheaper and satisfied the needs of a smaller city and a smaller civilization? We have expanded municipally since the days when every ten-year-old lad "ran with his engine"—we have expanded in territory, in population, in the progressiveness of our ideas, but also expanded in our municipal pocket-book. The question to be asked is not, What will it cost? But, Will it pay for its cost? Permit me to quote from a recent article in the *Wiener klinische Rundschau*, written by the director of the Sanatorium at Alland, near Vienna. He says: "The great expense connected therewith, which appears to be the main argument against the establishment of municipal sanatoria, must appear in an entirely different light to every one who studies the facts—that is, to every one who studies what it costs society to support the consumptive until he dies, and what it would have cost had he been cured or at least sufficiently improved by treatment according to modern meth-

ods to permit him to return to the ranks of bread winners."

To sum up, we are spending enormous sums to-day, often without the saving of even a life, merely because it is being spent at the wrong time. Our motto should be, as was so forcibly expressed by Dr. Pryor last year: "At the right time, in the right place, in the right way, until cured; not, at the wrong time, in the wrong place, and in the wrong way until dead." I had hoped to have the City's chief financial officer discuss this matter from the point of view of the economical public servant bound by his sense of duty and by his oath of office to protect the treasury from extravagant and frivolous outlay. It was my desire that this Section should learn directly from him the financial outlays to which the City was already committed, the true status of the City in relation to the legal debt limit and the extent of the support or opposition that those interested in this movement might expect from the Department of Finance. I said to him: "You may pitch into us if you choose—but let's know at least where you stand and, if need be, let's have it out." I obtained a definite promise from him to attend this meeting, but no positive promise to take part in the discussion. I sincerely trust we may hear from him.

But let us suppose that we have allayed the fears of our opponents regarding the total of the original outlay; and let us suppose they are satisfied to allow us two or three hundred thousand dollars for this purpose—they will still fear the demand for fabulous millions in the future, to care for all the incipient cases, and they shudder at the thought of saddling the City with this enormous burden. Now, how much approximately would it cost the City if it were to embark upon a project of this kind? According to the Board of Health reports, there were in Greater New York during the current year, up to and including September 22d, 6079 deaths from pulmonary tuberculosis, from which we can deduce a death-rate for the year 1900 of about 8100. If we remember that the death-rate and the average duration of the disease remain about the same, we are forced to the conclusion that there are about 8100 new incipient cases each year, taking the place of those who have died. If each one of the 8100 had six months' sanatorium treatment the expense would be equivalent to the care of one-half that number for one year, or about 4000 cases. At the most liberal estimate nine-tenths of these may be classified as poor and liable to become a public charge; this reduces the total to 3645. If we allow for those taken care of by private charitable agencies the number is further reduced to about 3000, for whom buildings and equipments would cost about \$3,000,000, and annual maintenance about \$1,000,000. But no one has asked that this burden be assumed by the City. An appropriation of about \$300,000 is all that the friends of this measure are asking for, and those who persist in claiming that this sum is but the beginning of

an endless chain of annual appropriations should recall the fact that in the future the City will be the judge of the practical value of its first investment.

The claim is made that the proposed measure will not eradicate the disease. Is this a reasonable objection? Because we may not be able to eradicate the disease, shall nothing further be done toward limiting its spread and toward diminishing its death-rate? This philosophy of sitting down and waiting for the millennium to come, this philosophy of wanting to do nothing because you cannot do everything, will in my humble judgment scarcely appeal to a people as practical as the American people. It seems very much like wanting to treat nobody because you cannot save everybody—a doctrine which surely my colleagues of the medical profession will be slow to accept; otherwise, since they cannot eradicate death, they might as well give up the practice of medicine and go to teaching music or to farming, if you please. We may be justified in being conservative; but this is not conservatism;

sumptives can be cared for in accordance with modern methods. While we have that type of philanthropists among us, we need have no fear that the hand of private charity will be palsied.

Having answered the objections allow me to tabulate a few cogent reasons why, in my opinion, the proposed hospital should be established.

(1) The problem is an enormous one and requires the union of all forces, municipal, State and private.

(2) There is no doubt that the expressed sentiment of the profession in this city is in favor of the plan. Let me remind you that in November, 1899, the President of the State Board of Health sent a copy of the bill under which I am advocating action to 5000 physicians in New York and Brooklyn, and that out of 1512 answers received (which large number in itself was evidence of unusual interest) there were 1500 answers in favor of and 12 opposed to action being taken. A more striking endorsement of a public measure has rarely, if ever, been reported.

(3) The increased hopefulness of the medi-



Country Sanatorium of the Montefiore Home for Incipient Tuberculosis at Bedford Station, Westchester Co., N. Y.

cal profession of the curability of the disease. For proof of this, I need only point to the results of sanatorium treatment coming to us from all parts of the world, and to the establishment of sanatoria by German Invalid Insurance Companies, as a life- and money-saving measure. The results in Germany have been so favorable and have stimulated the erection of sanatoria to such a degree that about 30,000 incipient cases can now receive treatment for three months each, and 72 per cent. of these are returning to the ranks of wage-earners (*Pannwitz, Berlin. Klin. Woch.*, No. 30, 1900).

Some fear the opening of City institutions for a multiplicity of disease. For instance: Why not a City hospital for cancer? And if not, why not? I should answer that cancer is not so prevalent as pulmonary tuberculosis, that provision for its care is not so inadequate, and, most important of all, that cancer has not been proven to be communicable and therefore is not a menace to a healthy citizen.

Some may raise the cry of excessive paternalism and the paralyzing of individual effort, as they did against the movement for State care. In reply I may state that in the very midst of this agitation for public aid, the directors of the Montefiore Home of this city—private citizens, mind you—in place of waiting for action on the part of the city, have planned and pushed to completion at Bedford Station, Westchester County, a sanatorium, where 160 incipient con-

sumptives can be cared for in accordance with modern methods. While we have that type of philanthropists among us, we need have no fear that the hand of private charity will be palsied.

(4) The inadequacy of public and private endeavor. Under this head let me offer the following evidence:

With 8000 annual deaths from consumption in Greater New York, we may fairly deduce that the total number of consumptives living in all stages at any one time reaches 25,000, and probably the number is nearer 30,000. A census of all the cases of phthisis in all the hospitals, public and private, in Manhattan and The Bronx,

taken on January 20, 1899, showed only 1010. A study of the figures from the boroughs of Brooklyn and Queens may increase the total by about 100.

MANHATTAN AND THE BRONX.		
Census of Tuberculosis cases in Hospitals, January 20, 1899.....	1,010	
New cases	548	
Cases previously reported.....	462	
Tuberculosis cases reported by Institutions to the Department of Health during year 1899.....	10,178	
Bellevue Hospital	1,008	
Bellevue Dispensary	433	
Metropolitan Hospital	907	
City Hospital	308	
Harlem Hospital & Dispensary....	57	
Gouverneur Hospital & Dispensary.	191	
Total	2,904	
Duplicates, or of this number there had been previously reported....	867	
Other institutions, physicians' cases and sputum examinations..	7,274	10,178
Duplicates	1,605	
Total number of duplicates.....	2,472	
Total number of new cases.....	7,706	
		10,178

In addition a census taken in the Department of Charities, Manhattan and The Bronx, January 1st and October 8, 1900, showed an average of only 250 consumptives, and if we include the cases paid for by the city at Seton Hospital it increases the total number of cases charged to the City to about 365. There are two conclusions to be drawn from these figures: One is that the City is doing insignificantly little, and the other is that private charity is doing twice as much. The figures are even worse than they appear, for a very large proportion of the cases are far advanced in the disease and taken to the hospital to die, and they should not be allowed to obscure the problem of incipient and hopeful cases, for whom primarily the out-of-town institution should be established. In proof of this statement I offer the following death-rate among the cases in the Department of Charities, including the Almshouse, Bellevue, City, Fordham, Gouverneur, Harlem, and Metropolitan Hospitals:

CASES OF TUBERCULOSIS TREATED IN PUBLIC INSTITUTIONS IN MANHATTAN, THE BRONX AND BROOKLYN

INSTITUTIONS.	No. remaining Jan. 1, 1900.	No. of beds assigned.	No. of cases Oct. 8, 1900.	No. of cases Jan. 1, 1900, to Oct. 1, 1900.	No. died Jan. 1, 1900, to Oct. 1, 1900.
Almshouse	116	120	82	83	80
Bellevue Hospital....	14	40	21	487	98
City Hospital.....	85	..	82	482	272
Fordham Hospital..	..	..	..	16	3
Gouverneur Hosp'l..	..	..	..	139	12
Harlem Hospital....	..	..	..	90	4
Metropolitan Hosp'l..	60	31	31	542	166
	275	191	216	1839	635

Out of 1839 cases admitted to these institutions from January 1st to October 1st, 1900, there were 635 deaths. Out of 3050 cases admitted to 26 private hospitals in Manhattan, The

Bronx and Brooklyn, in 1899, 914 died. In further proof I also offer the following extract from the Fifth Annual Report of the Seton Hospital, 1899: "The great majority of the cases sent by the Board of Health were cases of advanced disease." Let us add to this institutional evidence of the present inadequacy the experience of hundreds of physicians practising in this city, each one of whom is burdened with the care of cases which are hopeful when first seen but become hopeless, because at present the right thing cannot be done by them; let us add the evidence offered by workers in the tenement sections in the city, by the University Settlements, the Charity Organization Society, the United Hebrew Charities, the Association for Improving the Condition of the Poor, some of which organizations frankly admit that they are swamped by these cases, and we are forced to the inevitable conclusion that with all its mercy, with all its generosity, New York has not yet done its full duty.

CASES OF PULMONARY TUBERCULOSIS TREATED IN PRIVATE HOSPITALS IN MANHATTAN, THE BRONX AND BROOKLYN.

Hospital.	Year.	No. treated.	No. died.
1. Montefiore	1899	204	53
2. Seton	1899	434	138
3. Mt. Sinai	1899	72	13
4. Home for Incurables...	1899	15	6
5. St. Mark's	1899	13	..
6. St. Luke's	1899	220	82
7. Beth Israel	1899	9	..
8. Trinity	1899	12	..
9. Colored Home & Hosp.	1898	24	14
10. Post-Graduate	1899	18	..
11. J. Hood Wright Mem'l.	1899	17	..
12. St. Francis	1899	136	7
13. Homeopathic	1899	?	..
14. Loomis Sanit'm (City)	1899	135	38
15. German	1899	81	7
16. Presbyterian	1899	?	..
17. Columbus	1899	14	1
18. Roosevelt	1899	45	12
19. New York	1899	50	10
20. St. Joseph's	1899	1500	529
21. St. John's	1899	..	..
22. St. Peter's	1899	..	..
23. Brooklyn	1899	40	..
24. Methodist Episcopal ..	1899	10	3
25. Orthopedic	1899	..	1
26. Red Cross	1899	1	..
		3,050	914

(5) The disease is a menace to public health. I need not dilate upon this phase of the question before an audience of this character.

(6) An object lesson will be given by New York to those other municipalities in the State to which the same authority has been given, as yet, however, barren of results.

(7) There will be great value in the hygienic education of the patients and their training in the proper distribution of their sputum will diminish the spread of the disease.

(8) The money value to the City of lives saved will be millions of dollars, whether estimated by what it costs to rear and to educate an individual, by what it costs to care for dependent widows and children, or by the law once upon the statute books of this State, valuing a life at \$5000.

(9) Let me remind the members of this Section that at a general meeting of the Academy of Medicine, held on December 21, 1899, a resolution favoring the establishment of a municipal sanatorium was indorsed. It remains to devise means for furthering this plan, so pregnant with hope for the consumptive poor, and of arousing our public officers into action. In the practice of our profession, than which there is none nobler, the prevention of disease, the prevention of avoidable suffering and its lengthening chain of misery are among its highest aims. If each one of us in his private, in his public and in his professional life preaches the need of further municipal action, the agitation *will* and *must* bear fruit.¹

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REPAIRING THE ABDOMINAL WALL IN VENTRAL HERNIA: A NEW OPERATION.

By CARL BECK, M.D.,
OF NEW YORK.

As long as the opponents of early operation in appendicitis are numerous in the profession, hernia as a sequel will continue to be a frequent experience. In an operation too long deferred the large size of the incision, the extensive exposure and the wide packing that are necessary, are quite sufficient causes for the imperfect agglutination of the peritoneum as well as of the muscular and aponeurotic layers of the abdominal wall. Thin connective tissue fills up the hiatus; and as soon as the patient gets up, intra-abdominal pressure produces a hernia.

Sometimes a broad elastic-webbing band with a well-fitting pad may prevent eversion; but in most cases an operation for the repair of the incisional hernia is required. Under ordinary circumstances, and if much time has not elapsed since the operation for appendicitis was performed, excision of the scar, careful exposure of the peritoneal, muscular and aponeurotic layers, and the removal of adhesions between the peritoneum and the underlying intestine, will completely restore the integrity of the abdominal wall; but in complicated cases, and especially when much time has elapsed since the operation for appendicitis, atrophy of the muscular layers having taken place at the same time, the muscular deficiency may be so great that approximation of the muscular layers is out of question.

In such a desperate case I have had to resort to an extensive plastic operation in order to cover the gap. The patient was a man, twenty-three years of age, on whom, four years ago, I had performed an operation for appendicular abscess seven days after the onset of the acute attack. Peritonitis, while not general, still had lost its circumscribed character. The cecum was covered with fibrinous clots which needed extensive exposure and wide packing with iodoform gauze. The patient insisted upon leaving the hospital before the wound was closed completely,

and there was no opportunity for seeing him again until three months ago, when he presented himself with a ventral hernia in the scar of the appendicular incision. This caused considerable digestive disturbance. The intestine could be felt immediately below the cicatrized integument to the extent of the palm of a man's hand.

Taking the most minute aseptic precautions, the scar was excised and the peritoneum exposed. After a few adhesions uniting the parietal peritoneum with the cecum were disposed of and the different layers of the abdominal wall were carefully denuded, it was found that an approximation of the muscular tissues was impossible. Muscular tissue was absent; not one fiber could be detected between the margins of the rectus muscle and the anterior superior spine of the ileum. Having ascertained by previous experiments (MEDICAL NEWS, September 16, 1899) how well the rectus muscle tolerates even an extensive loss of substance, I concluded to utilize its superficial layer as a reverted flap for the covering of the gap. For this purpose the rectus muscle was incised alongside its internal margin (Fig. 1, A-D) to the extent of nearly

FIG. 1.



Showing Gap in Muscle.

half its thickness. Two transverse incisions, connecting the outer and inner margins of the muscle (A-B and E-D), and extending down the substance of the muscle to the same extent, the lower one being as near Poupart's ligament as possible, and the other one below the umbilicus, completed the outlining of the flap, which was carefully lifted. Beginning at the internal marking of the incision (A-D), the upper layer of the fibers of the rectus muscle was also divided, until the flap, so formed, could be lifted near the outer margin (B-E) with which it remained con-

¹ See discussion p. 671.

nected in the manner of a hinge. The reverted flap was now fastened to the muscular remnant (Fig. 2, A-C and D-F) with iodoform-silk sutures. The

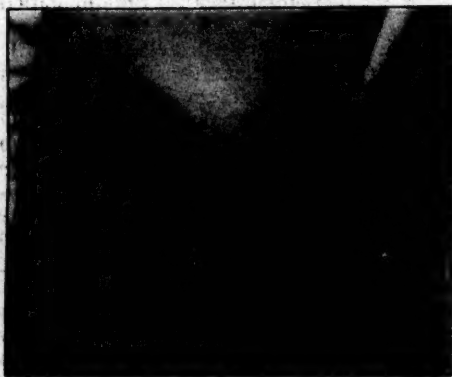
FIG. 2.



Showing Gap Closed with Flap.

tiers uniting the fascia then consisted of formalin-catgut, which was also selected for the subcutaneous suture. Four relaxation sutures, consisting of iodoform-silk, were applied through the skin three-quarters of an inch distant from the wound-margin, so that there was no direct contact with the wound-line.

FIG. 3.



Showing condition of patient three months after the reversion of the rectus muscles and one month after the operation for hernia.

Recovery was uninterrupted. Where the gap and the attenuated muscular layer were previously established, a thick firm wall could be found.

Two months after the operation no protrusion occurred while the intra-abdominal pressure was increased by the efforts of coughing.

Another interesting feature of the case was the coexistence of a congenital inguinal hernia of the same side, for which I performed radical operation (Fig. 3) after the principles emphasized in my modified operation for inguinal hernia (MEDICAL NEWS, September 16, 1899). The patient is now perfectly well.

A PLEA FOR THE MORE FREQUENT AVOIDANCE OF EXSECTION OF THE OVARIES IN CONNECTION WITH OPERATIONS UPON DISEASED TUBES.

By PHILANDER A. HARRIS, M.D.,

OF PATTERSON, N. J.

FOR the interests of this paper it is convenient for us to regard the uterus as a kind of sinus having attached near its top two additional sinuses, which we call the Fallopian or uterine tubes. When gonorrhea or other disease infects the uterus it is liable to extend to the Fallopian sinuses; and when thus established comfort and health are more or less encroached upon, if, indeed, life is not endangered.

To effect a cure of chronic suppuration in the Fallopian sinuses we have resorted to a variety of exsective and amputative operations. None of them, even the most mutilating, in which the uterus, both tubes and ovaries are sacrificed, can be relied upon to effect a symptomatic cure in every case. The operation most resorted to for suppuration of these sinuses has been the so-called salpingo-oophorectomy by abdominal incision; and inasmuch as both the Fallopian sinuses are generally found diseased, the operator usually sacrifices both tubes and also, as a matter of routine, both ovaries.

Many gynecologists who began as we all did, by removing the ovary with each diseased tube, are still doing so as a matter of routine in every case, and occasionally one is still found who continues to justify his practice in this relation. Others having been convinced that the tubal sinus is the real structure at fault, and that the ovary in a large proportion of cases is only the contiguous and unwilling participant in the suppurative process, have in their later practice confined their ablations to the tube, and have only now and then sacrificed the ovary or ovaries while amputating diseased tubes. I cannot yet say that more than a very small proportion of the gynecologists are removing the Fallopian tubes and leaving the ovaries in most of their cases, but I am entirely convinced that many are doing so and, I am assured, with a fuller measure of satisfaction with their results than were obtained in their earlier and more mutilating operations.

¹ Read before the Section on Gynecology and Obstetrics of the American Medical Association, Atlantic City, N. J., June, 1900.

I wish in this paper to divide all the operations for ablation or removal of the tubes into two general classes and use a term or expression for each class. Class 1 embraces any operation in which more or less of the tube is removed by cutting it off at one point or another between its fimbriae and the uterus, and I shall refer to any such as an *amputation of the tube*. Class 2 embraces the practically complete removal of the tube which can only be effected by an encircling or elliptic dissection around the tube and into the uterine tissue and a severing of the lumen of the Fallopian sinus at its termination with the uterine mucosa. This incision in the wall of the uterus is then united with close suturing. Such an operation I shall refer to as an *excision of the tube*.

Physiological Functions in Interest.—The continuance of menstruation depends on two conditions; the presence of the uterus, and an ovary or, at least, a portion of an ovary. With these conditions present excision of both tubes neither arrests menstruation nor ovulation, but it, of course, renders pregnancy impossible. The occurrence of pregnancy depends on the presence of an ovary or a piece of an ovary and the uterus, with at least one Fallopian sinus communicating with the cavity of the peritoneum. Pregnancy is possible, and there are repeated instances of its occurrence, through the medium of open Fallopian stumps from which the tubes were amputated close to the uterus. The relative frequency of intra-uterine pregnancy after simple bilateral amputation of the tubes cannot be determined until the practice of removing the ovaries in these cases comes more in vogue. Busy gynecologists who have ceased to sacrifice the ovary while performing bilateral amputations of the tubes, are beginning to report the subsequent occurrence of pregnancy. The small ostium abdominale of a tubal stump, with its unobstructed sinus, is, however, far less liable to receive the ovum and pass it to the uterus than the ostium at the fimbriated extremity of a normal tube.

The complete removal of both ovaries and all ovarian stroma promptly eventuates in the arrest of the functions of menstruation and ovulation. The surgical arrest of the function of menstruation at any age is followed by more or less of the disagreeable nervous phenomena which attend the normal cessation of menstruation at the change of life. The quality of sexual instinct, an item of woman's existence which enters more or less into her life and behavior in various ways, is probably in no way impaired by simple removal of the tubes, but I am thoroughly convinced that removal of the ovaries very often lessens the intensity, while it also often speedily terminates the existence of this quality in women.

With the exception of operations for ovarian tumors, about all of the earlier operations of the uterine appendages consisted in seizing the ovary and tube through the abdominal incision, forming a pedicle in such manner as to secure as much of the diseased tube as possible, and encircling, or transfixing and encircling, the stump

thus formed with a ligature, and cutting off the mass on the distal side of the ligature. In all such operations more or less of the uterine end of the tube was left. In some cases a small part of the ovary was unintentionally left. Of the thousands upon thousands of women thus operated on a goodly portion were cured of dysmenorrhea, pelvic pain and general morbidity which rendered life burdensome before operation. Menstruation generally ceased, but in a certain small percentage of cases where ovarian stroma was left, it continued, while pregnancy followed in a very few isolated cases.

Patency of Fallopian Tubes After Amputation.—One would suppose and many have claimed that a tube ligated and amputated on the distal side of the ligature will remain closed. In contradiction to this is the occurrence of pregnancy after bilateral amputation, and the report that in the few patients in whom the stumps have been afterward examined they have been found patent or open. The failure to effect by amputation a symptomatic cure in a certain percentage of cases is doubtless due to the fact that the amputated tube reopens, and that septic exudations continue or recur from subsequent infections. Dr. Bovée has demonstrated with several specimens a condition of open tube-stumps after the ordinary ligature and amputation.

I am strongly inclined to believe that further investigations will demonstrate that a very large proportion of the stumps of tubal amputations either have, or, later acquire an ostium abdominale and an unobstructed, although short, Fallopian sinus to the uterine cavity; and that this contracted yet open sinus is the occasional avenue of stump-infection or reinfection which operators have sometimes characterized as neuralgia of the stump when the patient returned with some of her pre-operative symptoms.

Diseased tubes, as a rule, are recognized readily by the eye, and their removal by amputation eventuates generally in a symptomatic cure. These septic or suppurative processes are usually carried on in the tube and, although they often extend to adjacent parts, particularly the ovaries, the ovaries are unwilling, and in many cases only temporary participants in this suppuration. An ovary with the fimbriae of a suppurating tube agglutinated to its surface may safely evade infection until a Graafian follicle bursts within its grasp; by which event infection of the ovary and the development of an ovarian abscess is liable to occur.

Although the ovary is often engulfed in exudates, and at times both ovaries are completely covered in, the function of menstruation continues, and, if we dig out and amputate or excise a tube and save the ovary, we also retain for the woman the function of menstruation. If while amputating the tubes we free the ovaries from many of the adhesions which may have hidden them from view, saving them for the woman, they will show little or no disposition to harbor suppuration as do the tubal sinuses which infect

them. In other words, it is the unwilling participant in the suppurations so common in the tube. At a meeting of the American Gynecological Society, in Boston, two years ago, I heard Dr. Howard A. Kelly remark, while discussing the papers of Drs. Dudley and Bovée, as follows: "There is a great deal of talk about chronic ovariitis, but there is nothing in it, for it is a condition which is very rare. Many of us sacrifice the tube or an ovary for purely technical reasons, for it is easier to pull it up and cut it off, as it is usually involved in inflammatory adhesions. We should always make an effort to save the tube or some portion of it, so that the theoretical hope of pregnancy may be retained for the sake of the patient."

Less than three years ago I abandoned the routine practice of removing the ovaries with their diseased tubes. Since that time it has been my custom when ablating diseased tubes to spare to every woman as much ovarian tissue as possible. I can now recall but two instances in which a surgical menopause has followed double tube amputation or excision during this time. I have as large a percentage of cures as was obtained by the coincident sacrifice of the ovaries and I have a grateful class of women, most of whom appreciate the advantages of retaining the function of menstruation. One patient, however, was not entirely satisfied with my having retained for her the function of menstruation and ovulation. During her husband's absence from this country, I amputated both tubes, leaving both ovaries. Six months after the operation, and before her husband's return, she presented herself to me with the appearance of pregnancy. Upon my diagnosis of probable pregnancy, she at once told me that she little thought pregnancy possible to one who had been operated on as she had been; I assured her that it was possible and that I believed her pregnant. Her physician, a man of high standing, who referred her to me for removal of tubes, has since informed me that she had an abortion at about two and a half months, and that it occurred a short time after her visit to me.

This brings to mind the question of how far the patient herself should be consulted in regard to what she should keep or part with when she submits to the knife. The married woman with children, as a rule, does not wish more. The gynecologists, to gratify the wishes of this patient may sacrifice her ovaries, and with it every possible chance of future pregnancy. Her husband dies, she again contemplates matrimony, but she is reminded that she is not a perfect woman, and must make known to the other contracting party her sterility, or possibly afterward suffer the disadvantage of annulment of her marriage contract. For her to make known to the prospectively contracting party her condition of sterility is to lose, in some instances, the re-marriage.

The peculiar social life of some women is such that for the time being they look with favor

upon an operation which will sterilize them. There is, however, a certain small percentage of prostitutes who will yet change their lives, marry, and be happy. If for the reason that such cases are but isolated ones, we sacrifice menstruation for the whole class, and with it every possibility of pregnancy, our surgery in this relation may prove a contributing hindrance to their reformation, respectability and happiness.

The woman of respectability, of eighteen, twenty-five, thirty, or even thirty-five, surgically cured of her pelvic disease, but conscious that she is not as other women are, in that she does not menstruate, feels herself personally inferior to womankind, and this feeling of personal inferiority may be so strong in her that it will become a powerfully contributing factor in her general condition of unhappiness. I know of many such instances. Some of them were my patients, operated years ago. I am convinced that sufficient ovarian stroma may be saved to maintain menstruation and ovulation in at least ninety per cent. of all the bilateral tubal amputations and exsections for the so-called purely inflammatory lesions of and primarily in the tubes, and that a cure of the pelvic pains does not depend on the removal of the ovaries, but on a removal of the disease from its pathologically natural habitat, the Fallopian and uterine sinuses. Dysmenorrhea and the pains which precede and follow menstruation, and which are so common in tubal disease, must be particularly inquired into. If these pains had no existence prior to the development of tubal disease, they will probably disappear when the tubal disease is removed and the ovaries need not be sacrificed to effect a symptomatic cure. I have had many cases with post-operative history exemplifying this statement.

In the past, as now, the sick and afflicted relied upon our propositions and accepted our advice. We acted in the light of what we supposed we knew and, while we were praised for our good offices in that relation, we brought the public to believe that almost any kind of a suprapubic section of the female abdomen carried with it the removal of the ovaries and the consequent arrest of menstruation and sterility as a matter of course. The public by instinct, as it were, has wisely resented our invasion of its rights, and I am happy to believe that we can now see our way to effecting as many cures with far less mutilation than in former times, while we can also maintain for almost all these women sufficient of the several and particular qualities to enable them to remain and rank as so-called perfect women.

A woman for whom we have spared sufficient ovarian stroma to continue the phenomena of menstruation and ovulation, but from whom we have exsected one tube and amputated the other, is not very likely to conceive. Still, we cannot say of her that pregnancy is impossible. If we have saved for her the ordinary and outward evidences of the normal functions of woman, and

if for her conception is at all possible, she may rank as technically perfect in womanhood, and without fear of invalidating a contract of marriage should that be made without reference to her past medical history. In view of these facts, for I believe I have presented no claims which cannot be substantiated, we should spare to as many as possible menstruation and ovulation, and also, for whatever it may be worth, the practical although slight hope of conception.

THE IMPORTANCE OF REST IN PULMONARY TUBERCULOSIS.¹

By CARROLL E. EDSON, A.M., M.D.,
OF DENVER, COLORADO.

WITH our present understanding of the natural history of pulmonary tuberculosis we must appreciate more and more the necessity not only of early recognition and of securing the largest amount of fresh air and sunshine in its cure, but of the physician having constant and close supervision of all the details of the nutritional and hygienic life of his patient. None of these details can be neglected wisely, but I wish to emphasize especially the importance of securing prolonged rest, for the reason that most patients in the early stages of pulmonary tuberculosis take an amount of active exercise which is liable to do them harm.

In the enthusiasm of securing the greatest abundance of fresh air and sunshine, the error is made of assuming that outdoor life necessarily means walking, riding or bodily activity; and many physicians even advise such exercise in direct conflict with the indications from the pathology of the disease, although they habitually follow the same indications in a case of joint tuberculosis.

The obvious and unquestioned treatment of a case, however incipient, of tuberculosis of the spine or of any joint is the immediate immobilization of the part; the maintenance of complete physiological rest during such time as may be needed for the inflammatory process to subside and the damaged tissue to be walled off. In tuberculosis of the lungs, on the other hand, the local lesion is not thus happily apparent at the start and the disguise of a simple general debility with a little hacking cough leads to forgetfulness of the true pathological state. And yet tuberculosis of the lungs has a natural history, similar to that of a joint infection; the pathological process is in all essentials the same, the microscopical details differing only in the histological structure of the affected tissues.

The indications in each are the same, namely, to secure local tissue rest while the protective changes are secured. The better prognosis of a joint tuberculosis is due in large part to this obviousness of the lesion and to the greater possibility of securing quiet, for a joint can be im-

mobilized while a lung cannot. We need not walk. The maintenance of life necessitates some use of the respiratory apparatus.

Difficulties in the way of complete suspension of function in the lung should not cause us to ignore the indications so clearly shown. The obvious means of physiologically lessening the functional work of the lungs and thorax is to diminish as much as we can the respiratory demands of the body.

Respiration is not simply a thoracic need, but a service called on by all bodily activity. Muscular action directly increases the amount of gas exchange within the tissues and thus augments the respiratory labor. As our respiration is easier when quiet than when running, so it is less when lying at rest than when standing, by just the amount of muscular action needed to hold the body balanced. Pleural friction is less and the quieter thoracic action diminishes cough. This relieves the nervous wear, and protective tissue changes are favored.

Bodily rest is beneficial in other ways than in respiratory quiet, and for similar physiological reasons. The cardiac labor is lessened and the quick, small, irritable pulse of early tuberculosis, which, when continued, is of such evil import, depicts a waste of vital force which were better employed in the local combat against the bacillus.

The most important physiological reason for insisting on rest in pulmonary tuberculosis is the influence of bodily exercise in increasing temperature. As a physiological fact this is known, yet the knowledge is not applied in our rational therapeutics. A most convincing proof of the effect of undue bodily exercise in creating fever is the test made by Dr. J. Baptist Blake of Boston upon the contestants in the Marathon race. In an unpublished paper he says that "the temperature taken by rectum was almost invariably raised. The average rectal temperature was 102.4° F. Omitting two instances in which it was not representative of the true condition, the average rectal temperature at the close of the race was 102.8° F."

Not only our physiological knowledge but our clinical experience shows that the surest way of reducing the fever of pulmonary tuberculosis is by prolonged rest in the fresh air, and by rest I mean as near complete bodily quiet in the recumbent position as can be had. The higher the temperature the more necessary is the complete rest of the reclining position, while a slight afternoon rise is controlled by simply forbidding walking. The harmful effect of cardiac, or indeed muscular or even parenchymatous labor during high temperature needs no elucidation. One avoids it studiously in the fever from pneumonia or typhoid toxins, why call upon it in the fever due to Koch's bacillus?

All our knowledge points to an enforcement of rest in tuberculosis, and our clinical experience also, if we will but read it thoughtfully. All who have had service in a general hospital have seen case after case of phthisis in which the fever

¹ Read before the Section on Practice of Medicine of the American Medical Association, Atlantic City, N. J., June 7, 1900.

and the cough have at once and steadily diminished as a result of the quiet rest in bed and the cessation of nervous exhaustion from labor. I have little hesitation in giving the chief credit to the rest, for too commonly (in the past) the hospital care of chronic phthisis has been a tragic farce. Our clearer vision to-day of pathology and its relation to physiologic life shows us lessons which we were learning without heed.

The importance of rest and the harm of undue exercise during the active stages of the disease are especially apparent in patients coming to a high altitude for the first time. It will be agreed, I feel sure, by all whose work is at a high altitude, such as Denver, that the invalids who keep quiet at the start do best and that immediate exercise is nearly always disastrous. The additional demand on the circulation and respiration made by the thinner air is all the work it proves well to ask at first. If the patient adds to this a further call by muscular exertion—hunting, golfing, riding—the task is over great. Continuance, if not increase of fever, cough and general exhaustion are inevitable. A carefully kept temperature chart of a patient inclined to doubt the effect of exercise in reviving a partly quiescent fever will prove a most graphic argument to him and to his physician for the insistence on absolute quiet.

Let me cite only one case out of many which all can duplicate. G. B., male, thirty-seven years of age, came to Denver in January, 1898, with tuberculous disease of the upper right lung. He had no fever, no cough at night and only a little expectoration by day. His weight was 140 pounds, and his general condition fair, with little impairment of strength. Upon ill-judged advice he took much exercise, fencing for two hours every morning and walking in the afternoon until he was so tired that he had to "will" himself to do it. At the end of four weeks he had lost nine pounds, was coughing a good deal and so much at night as to materially disturb his rest. The pulse was quick and the temperature often 100° F. He looked worn and his face showed the lines of nervous tire. He was ordered to remain in a steamer-chair on the veranda, not leaving it for any reason. In three days his cough at night had stopped, and in three weeks he had gained ten pounds.

The objections usually raised at first to such orders for complete rest are two: First, the mental and moral irksomeness, "I cannot stand it." Experience, however, shows that the patient does stand it very well. I have tried it myself. There is an inertia of action as well as of rest, but with honest trial and kindly device on the physician's part it can be overcome. The second objection is the possible interference with digestion and elimination. This, too, is an unfounded fear. The digestive ability of patients undergoing this quiet during the period of fever and pulmonary activity is astounding at times even to one who is accustomed to it. Two pounds' gain per week for ten weeks is not unusual and I have seen eighteen

pounds gained in three weeks without the least disturbance. Any signs of intestinal sloth are more easily remedied than the harm from extension of tuberculous disease induced by over-exercise.

The more one sees of the varying picture of tuberculous disease, the more impressed he must become with the importance of giving increasing conscientious attention to every detail of the invalid's life. The amount of exercise, even to the closest measure, must be studied and controlled. As long as there is fever there should be prohibition of exertion. The degree of rest, whether it be continued recumbency or half-day reclining, or simple limitation to a veranda, is a detail for each case, but a detail which should be regulated. The duration of such quiet depends on the results. The more thoroughly it is carried out the sooner the pulse and temperature will become normal. With the cessation of active disease the amount of exercise allowed may be gradually increased, the effects being carefully measured by the temperature, the pulse, the cough, and the weight.

PRESENT STATUS OF INTERSTATE RECIPROcity CONCERNING LICENSES TO PRACTISE MEDICINE.

By EMIL AMBERG, M.D.,
OF DETROIT, MICHIGAN.

THE medical profession has had the same task since the beginning of civilization. Diseases are practically alike all over the world, and among civilized nations a human life is valued equally high in all countries, or, at least, it should be.

The medical profession, as such, does not participate in the race for national supremacy. The only limit for the standard of the medical profession is the limit of human ability. The quality of the medical profession depends upon the quality of the medical schools. It is an open secret that in the United States the conditions of medical education, in general, are not such as they should be. Whoever is familiar with the literature on the subject will bear me out in my statement. I call attention only to the refusal of diplomas issued by certain medical schools. The only possible excuse for the inability to provide for a medical education worthy of the advanced position the United States takes among other countries, would be economical reasons. Economical reasons, however, fail to excuse the conditions existing at present. Besides this, medical schools belong to the most necessary institutions for the people. Those controlling public affairs should direct their efforts to provide the best possible physicians for those under their care. We all know that the cause of the inefficiency of most of the medical schools can be found in the fact that a few men can get together and, with little difficulty, establish a medical school; and, further, that the diplomas of less good schools are, in the eyes of the public who do not know the difference,

just as good as those of good medical schools. In order to have some kind of control, state or territorial medical boards became a necessity. The more advanced states and territories saw that they were obliged to protect the citizens of their jurisdiction from incompetent practitioners. In this way they put themselves on a higher level than the other parts, and a division takes place which reflects most peculiarly on the weaker states and territories and on the whole country.

What stand does the medical profession take in this question? The very fact that most of our medical schools are private institutions once for all prevents us from identifying the medical profession in the United States with the medical schools, therefore, the medical profession cannot adapt itself to the medical schools; the medical schools, however, must adapt themselves to the demands of the time. It has been a matter of great surprise to me for a long time why the different pathies can get such a strong foothold in the United States. I think that one of the reasons is the following: The inefficient general education, combined with lack of thorough training in physiology and pathology, only too easily induces many physicians to let themselves be controlled by the deplorable tendency to give too many drugs. It is reported on good authority that most of the so-called homeopaths make use of some of the same drugs as we do in the same doses. They, however, do not use drugs to the same extent. This seems to me one of the reasons why they sometimes are preferred to the so-called regular physicians. We frequently underestimate the understanding of the intelligent public. It is a well-known fact that physicians in countries with well-advanced medical education, which is recognized by the public, enjoy a greater confidence than in others, and we do not find so many pathies there. A thorough training of all physicians will have the effect that the different pathies will soon lose their importance. This thorough training in physiology and pathology can, in my opinion, be reached only when the teachers can devote their entire time and energy to those subjects; therefore, they should be well paid in order to be independent of practice.

We see the question of good medical schools is, to some extent, a money question. The states and territories should do properly what most of the private concerns do improperly. If there exist laws preventing this, they should be changed. I may repeat what I said on another occasion: If a law exists which apparently is against the welfare of the community, it must be abolished. A corporation should not be allowed to hide itself behind the screens of antiquated laws.

We now have boards, state and territorial, with executive power; that means, the state and territorial boards control the products of the medical schools. But, is this sufficient? Does a short theoretical examination give a good guarantee that a candidate is thoroughly trained in a profession which is eminently practical? We certainly must answer in the negative. The next

step necessary will be the control and ownership of the schools themselves by the various states or territories. If all schools were state or territorial properties they, necessarily, would soon be of equal standing. We would have equally well trained physicians, and there would be no reason for barriers between the states. Here I would call your attention to a clause in the medical laws, reading about like this: "And this Act shall not apply to any commissioned medical officer of the United States Army, Navy, or Marine Hospital Service in the discharge of his professional duties." Why cannot this clause read: "And this act shall not apply to any graduate of a college the efficiency of which is recognized by all boards of the United States?"

The good, even the excellent, work of many of the private schools is not disputed; however, it seems that these cannot excuse the system which makes it possible that so many less commendable schools can flourish. A system which allows only a single poor medical school to exist is a bad system, and it should not be tolerated. Permit me to mention in this connection the report by a committee appointed by the Superintendent of Public Instruction in Michigan, which reads, in part: "..... have made a report in which they say they were strongly impressed with doubts as to the wisdom of chartering private medical colleges, and state it to be their judgment that if such a policy is to be pursued, the following should be required:

1. A standard of preliminary education should be provided, and a board created to examine all students before entering upon the study of medicine.
2. Some safe, uniform standard for graduation ought also to be fixed and insisted upon, as a condition precedent to a license to practise medicine.
3. The financial solvency and stability of each such institution should be more carefully guarded and insisted upon.
4. Medical colleges should not be chartered in small towns, where clinical and hospital facilities, so necessary to the proper education of a physician, are not ordinarily found.
5. A constant and thorough visitation and inspection of such institutions should be regularly made by a board of visitors competent to judge fairly of their merits.
6. The capital of every medical college should be large enough to warrant the employment of men learned in their profession, and the provision of equipment in all branches adequate to promise a proper medical course.

The committee also says that the capital stock of many of the institutions appears altogether too small to give fair promise of success.

In a similar way, the *Journal of the American Medical Association*, of May 19th, says, in part: "If there is one thing in which the American medical education leads the world, it is in its quantity, but we do not congratulate ourselves on this fact. What we need is improvement in

quality, and it would be no loss if three-quarters of the hundred and fifty, more or less, medical colleges of all sorts in this country should go out of business. Our medical colleges have been too long originated and conducted as business investments, not always for their direct returns, but to supply from their output a consulting clientele for their professors. The stock company medical college, described by a prominent neurologist in the '70s, was a caricature with a broad family likeness to many of the institutions of the time, and there are still, in some quarters, relics of the same features amongst the medical colleges of to-day."

In this place I must criticize most strongly another state of affairs in our peninsula, in Michigan, because the same conditions might be prevented in another division, and also because it bears directly on the subject under consideration, *i. e.*, the interstate reciprocity for license to practise medicine. We have in Michigan six medical schools, three of them of recent date. Among them there are three in Detroit and one in Ann Arbor. Ann Arbor is about one hour's ride from Detroit. The medical schools in Detroit are private institutions; our state medical school is in Ann Arbor. I warn all friends of medical progress and of good citizenship to follow the example set by Michigan. The state medical institution, or, at least the clinical department, should, by right, be located in a place where the students and citizens of the state derive the greatest benefit from the same, *i. e.*, in the metropolis of the state. If the clinical department of the state medical school would be located in Detroit we could expect that the private medical schools would sooner be closed. This would be in the interest of the people. Ordinary common sense demands the change. I am fully convinced that I express the sentiments of a great part of the profession in Michigan. Rhode Island does not recognize the diploma of the Medical School of Michigan, because Rhode Island does not recognize the diploma of any medical school located in a place which has less than 50,000 inhabitants. Considering all circumstances we may well ask: Is it possible to remove the numerous Chinese walls in our country, or must we admit that the licentiates who are not sufficiently qualified in one part of the country become qualified by simply removing to another part of the Union, or must we admit that the value of human life varies according to the political division? It is not necessary to indulge at length on the absurdity of such a condition.

Nevertheless, even under present circumstances the multiplication of standards is not warranted. The most desirable regulation of the license to practise medicine, we admit, would come from a national board controlling the whole of the United States. This is impossible at present on account of our Constitution. The events, however, of recent times, show that there is another remedy, and this is within our reach.

The fifty-two or more groups could imme-

diately form combinations by bringing into effect the interstate reciprocity for the license to practise medicine. The efforts aiming at this are not of recent date. The progress, however, toward a more general adoption of the principle is very slow, for several reasons. In the first place, much preparatory work must be achieved in the single states, *vis.*, the establishing of adequate medical laws. The character of the laws does not permit, in most cases, the introduction of reciprocity. In the second place, the desire for reciprocity is not understood quite sufficiently by the profession and, especially, by the public; and, third, it has to be brought to the mind of the profession that uniformity of requirements for license to practice medicine will, necessarily, bring about a raising of the standard of requirements in almost every political division, and not a lowering of the same as has been feared by some.

Gradually the idea became familiar that the raising of the various standards might not be a less commendable part of the movement than the convenience and justice toward the profession, and, at last, it appeared that the aim toward a higher medical education is even the more important part of the whole movement. In Michigan, after the medical law had been established, it was the wish of the Wayne County Medical Society (*Physician and Surgeon*, January, 1899) to do their part toward an improvement of conditions. A committee of five was appointed for this purpose. There seemed to be great difficulty in getting the profession at large interested in the movement. After careful consideration it appeared to me that we should begin with the approval of the authorities who are entrusted with carrying out the rules governing the practice of medicine in the different political divisions. We addressed the authorities and asked them various questions, the most important of which were:

5. Would you be inclined to consider favorably the plan of entering into a state of reciprocity with other states or territories which have practically the same requirements for the license of practising medicine as your state or territory has?

6. Would you join in the efforts in working out a memorandum to be presented to the legislative bodies of the different states with the view to introducing a bill as to the subject matter, and would your secretary cooperate with us?

7. Have you any suggestions to make?

We received some kind of an answer from practically all of the states and territories.

The present situation presents itself as follows: (1) Of 52 states and territories, an examination is required in 32 (33, Texas?) and in that part of the Indian Territory which is occupied by the Cherokee Nation. (2) Favorable preliminary answers to our proposition from 38, part of Florida and part of the Indian Territory; 5 undecided, 2 unfavorable. (3) Of the combined answers, given at different times, and

partly expressing the sentiment of the political division; 40 states and territories and 2 parts of 2 other divisions answered favorably; 7 were undecided and 2 may be conditionally classed as unfavorable. (4) The laws allow reciprocity in 12 political divisions, District of Columbia, Illinois, Indiana, Maryland, Michigan, New Hampshire, New Jersey, New York, Ohio, Pennsylvania, Virginia, Wisconsin. (5) Actual reciprocity exists in 2 states, New Jersey and Pennsylvania.*

I may say here that my compilation may admit of improvement. I hope that the members present will correct the same as much as possible.

If I undertake to quote some of the answers received, I naturally do this without blaming any party for the stand taken. Every opinion is honored; it is an old saying that "Out of the differences of opinion the truth is born."

All the answers have been received within a year. I have selected out of their number the following answers, or parts of answers, respecting the law.

1. Alabama.

Answer to Question 5. Am not prepared to commit myself on this point now. (No signature.)

2. Alaska.

I would say that Alaska has no laws in reference to medical practitioners, except the laws of Oregon, if the District Judge here decides that they are applicable. By the license system attached to a penal code which was passed at the last session of Congress, itinerant physicians in Alaska are taxed fifty dollars per annum. I would be in favor of making the laws as stringent as possible, so as to make it very difficult for quacks and charlatans to practise.

(Signed) JOHN G. BRADY,
Governor of Alaska.

3. Arizona.

So far as interstate reciprocity is concerned, we have in this territory as yet done nothing, except that we have a tacit understanding in the profession that as soon as such a step is taken in any of the states or territories we will be with them.

It has been the aim of the medical examining board of this territory to so conduct its examinations that they could take a standing with any state in the Union, and it is our intention at the present time to present to our next legislature a bill authorizing the examining board of this territory to recognize the certificates from the examining boards of other states or territories of the Union wherein a like examination is held to that which we require here.

(Signed) WM. WYLIE.

* Porto Rico: Applicants who hold diplomas from respectable colleges or who have been licensed by any state board in the United States which requires an examination, are licensed without examination. (Physician and Surgeon, May, 1900.)

4. Arkansas.

Answer to Question 5. No, decidedly not, while the Chicago mills are at work.

Answer to Question 7. Boycott all of the Chicago colleges until they put a stop to their diploma mills. This is their duty to the profession throughout the country.

(Signed) H. C. DUNAVANT.

5. California.

Answer as to reciprocity favorable.

There is no work being done at the present time with the medical law, as our legislature does not convene until next winter, when an effort will be made to secure something more in accord with the present requirements.

(Signed) CHAS. C. WADSWORTH.

6. Colorado.

As our law requires no examination, reciprocity is unnecessary. However, we intend presenting a bill at the next meeting of the legislature on the lines of the Pennsylvania bill, in which, you will remember, there is a reciprocity clause.

(Signed) C. K. FLEMING.

7. Connecticut.

(See Maine.)

8. Delaware.

Answer to Question 5. I cannot answer this without the advice of the board.

Answer to Question 6. I think it very probable we would.

(Signed) IRVING S. VALLANDIGHAM.

9. District of Columbia.

The Board of Medical Supervisors of the District of Columbia will issue a license to practise medicine here, without fee and without examination, to any duly licensed physician who may change his residence to the District of Columbia from any state or territory where medical laws and medical examining boards exist, if the medical laws and medical examining boards of such state or territory grant equal rights and recognition to licentiates of said Board of Medical Supervisors of the District of Columbia. The difficulties which exist in current laws in the way of the establishment of reciprocity by this Board can be ascertained by you upon examination of such laws. The requirements of this Board are sufficiently rigid to warrant the recognition anywhere of such licenses as it has issued after examination, as you will see from the accompanying summary of the regulations governing examinations. The chief difficulty in the way of reciprocity seems to be, however, as stated before, in the matter of preliminary education.

(Signed) WM. C. WOODWARD.

10. 1st District of Florida.

Answer to Question 5. Yes. I answer this as to my professional feelings.

Answer to Question 6. Yes.

Answer to Question 7. The only suggestion that I can think of that would benefit us now is that, instead of having an examining board for each district, it would be better for all concerned to have only a state board, consisting of a representative from each judicial district, and let the candidate present himself to any member for examination and this member will notify the secretary of the board and he will then send questions (which have been previously arranged by each member in the branches on which they examine) to this member who is to do the examining; after the candidate has completed his examination then the questions on each branch shall be enclosed directly to the members who examine on the respective branches, to be passed on by them and the secretary notified of the result; if favorable, the secretary can then issue the certificate and have the president sign it and send it to the member or candidate.

(Signed) C. B. McKINNON.

11. Georgia.

Answer to Question 5. Personally, yes; and I presume the board would be so inclined.

Answer to Question 6. I presume so.

(Signed) E. R. ANTHONY.

12. Hawaii.

Our laws on this subject require examination of medical practitioners applying for license to practise medicine in this territory.

(Signed) CHARLES WILCOX.

13. Idaho.

We favor reciprocity and will help.

(Signed) R. L. NOURSE.

14. Illinois.

Resolution adopted by the Illinois State Board of Health October 10, 1899.

Resolved, That applicants for a state certificate to practise medicine and surgery in the State of Illinois, who have been examined and licensed by other State Examining Boards maintaining standards not lower than those provided for in the Act to Regulate the Practice of Medicine in the State of Illinois, in force July 1, 1899, shall be granted certificates without further examination on payment of fees required by the Act, providing, that the applicant, who must be a graduate of a medical college in good standing with this Board, shall present with his license an affidavit from the President or Secretary of the State Examining Board showing that the requirements of the said examining board at the time of his examination were equal to those exacted by this Board under the present law, and providing further that the State Examining Board will grant licenses without examination to applicants holding certificates issued by the Illinois State Board of Health under the Act now in force.

Note: Under the provisions of the Act to Regulate the Practice of Medicine in the State of Illinois, in force July 1, 1899, an applicants for a

certificate to practice medicine and surgery in the state must present evidence of being a graduate of a medical college in good standing, as may be determined by the Board, and must pass an examination in those general subjects and topics a knowledge of which is commonly and generally required of candidates for the degree of doctor of medicine by reputable medical colleges in the United States. No medical college will be considered in good standing after January 1, 1900, which does not require of all graduates receiving diplomas after that date, as a condition of graduation, an attendance upon four full courses of lectures in four separate years.

15. Indiana.

So far we have been unable to establish reciprocal relations with any State Boards.

(Signed) WM. T. CURRYER.

16. Indian Territory.

(Creek Nation.)

Answer as to reciprocity favorable.

In reference to medical practice in the Indian Territory, will say in reply that in the Cherokee and Creek Nations a regular diploma can be registered, for which a fee of five dollars is charged; otherwise a charge of twenty-five dollars is made for examination.

The Seminoles employ a reputable physician on a salary of \$1,250 per year, with the privilege of doing outside practice.

The Choctaws and Chickasaws require examination in all cases—for which twenty-five dollars is charged—which, in my opinion, should obtain anywhere.

(Signed) GEO. W. WEST.

17. Iowa.

Answer to reciprocity favorable.

The statute itself, and not any rule of the Board, declares that applicants for certificates must be examined by the Board. There is no way to avoid this unless the law itself is changed. Our legislature has adjourned and will not assemble until 1902.

(Signed) J. F. KENNEDY.

[To be continued.]

MEDICAL PROGRESS.

Absence of Vagina.—Carl Beck (*Annals of Surgery*, October, 1900) created a vagina which one year after operation was functionally useful. His patient had no vagina, no uterus and no appendages. The method pursued was as follows: Above the symphysis a transverse incision was made exactly as if a cystotomy were being done. A catheter was passed into the urethra and retained as a guide. Blunt dissection with two thumb forceps was done until the vulva was reached, when upon a long director the extravascular cellular tissue was divided near the ure-

thra. Two flaps were taken from the inner aspects of the thighs with their bases at the vulva. After liberal dissection of these, with their skin surfaces apposed to each other and their raw aspects corresponding with the canal already made as above, they were drawn upward until their apices could be secured above at the suprapubic wound. The usual tamponade made a good canal which aside from a little contraction was serviceable. The wounds along the thighs were closed on general principles.

Total Gastrectomy.—V. De Carvalho (*Lancet*, September 15, 1900) records the case of a Brazilian mulatto woman, aged forty-six years, whose emaciation had advanced so continuously that she weighed but sixty-eight pounds; she had always suffered more or less from gastric pains since her youth, with recurring attacks of gastralgia followed by vomiting (occasionally of blood), becoming more frequent and severe. On examination a tumor, the size of a turkey's egg, was found in the right epigastric region close to the costal margin, the tumor being movable and painless on deep pressure; a median excision extending from the xiphoid cartilage of the sternum to the umbilicus was made and the tumor exposed; owing to the adhesions of the stomach to adjacent viscera, gastroenterostomy which had been contemplated was deemed inadvisable; hence, gastrectomy was decided upon and performed in the usual way, great difficulty being experienced in enucleating the stomach and in approximating the duodenum to the esophagus. Although the patient's condition was poor during the operation, requiring stimulation, and the introduction of artificial serum intravenously, the patient came out from operation nicely; rectal feeding was continued for six or seven days; at the end of the ninth day the superficial wound had healed and the patient was able to take small portions of solid food, which were readily digested. This is the fourth successful operation thus far recorded, being the first one to be done successfully in Brazil.

A New Spinal Brace.—In Pott's disease of the spine in which a skin slough had formed over the hump, E. A. Tracy (*Pediatrics*, September 15, 1900) used a half-inch board splint extending from sacrum to neck, and having a hole $2\frac{1}{2} \times 3$ inches to receive the hump. The splint was padded with cotton and felt pads were attached to lie on the lateral processes of the diseased vertebrae. This exerted pressure for correction of the deformity, while it permitted the slough to be dressed. When the skin had healed two pieces of wood plastic material were attached to the board and moulded upon the child's body, one so as to embrace the chest, the other the pelvic bones. The brace cannot be put on wrong, may be removed once a week and snugly reapplied, and the pressure-pads can be changed or reinforced at will, a tightly-fitting undershirt is worn beneath the splint.

"Reminiscences" and Minor Epilepsy.—Careful study of the slighter forms of epilepsy frequently tend to throw some light upon the way the normal mental processes are carried out. The immediate effects of an epileptic fit depend upon the intensity of the localization of the nervous discharge. H. C. Thomson (*Practitioner*, September, 1900) says that there are three conditions which may arise from the discharge: (1) There is an overactivity of the part in which the discharge occurs, and subjective sensations corresponding to the function of that part are revealed. (2) The overactivity is accompanied or immediately followed by a negative condition which may be the predominant feature of the attack, and is manifested by a momentary loss of consciousness. (3) When the higher centers are involved, their control over the lower centers may be lost and the lower centers may cause acts of which the higher centers never become conscious. This is illustrated by the many automatic acts performed. One of the most interesting memory defects often associated with epilepsy but also occurring in healthy people is the so-called "reminiscence." This is a strange evanescent feeling of familiarity with some place or event which occasionally crosses the mind although the place is being visited or the event happening for the first time. One explanation of this rather common phenomenon is based on the idea of a previous existence. Another supposes that the two hemispheres do not act synchronously. Some have supposed them to be connected with dreams of somewhat similar plans or events. The author believes them to be due to temporary negative conditions of consciousness, probably due to some slight nervous discharge. He supposes that the first impressions of the room, for instance, do not rise into consciousness due to the temporary negative condition, but a moment later the scene is revealed together with this faint recollection of a distant event. Their occurrence must be considered abnormal and due to a localized discharge of nervous energy. A sudden increase in the frequency or intensity of sensations should be viewed with suspicion and should lead to a careful inquiry for other symptoms of a developing epileptic state.

Thrombosis in Pelvis and Lower Extremities.—K. Lennander (*Lancet*, September 15, 1900) reports that since resorting to elevating the foot of the bed of patients immediately after operation that the occurrence of post-operative thrombosis has decreased materially, probably owing to the mechanical aid afforded by this position in returning the venous blood from the extremities. Usually the foot of the bed should be elevated from six to twelve inches. In cardiac lesions, it is advisable to elevate the foot of the bed from ten to nineteen inches, gradually lowering this elevation some days after operation. Cardiac tonics such as digitalis, strychnine, etc., should also be employed in these cases; it is also helpful to massage the legs of some patients after

operation as this favors return circulation, provided the patient has not already had a thrombus; in laparotomy cases this method of elevating the foot of the bed is also beneficial.

Fractured Patella.—W. B. Trimble (*Med. Rec.*, September 29, 1900) advocates the following treatment as being most likely to give permanent good results. The knee is put in a soap poultice twenty-four hours prior to operation; on the morning of the operation it is thoroughly scrubbed with water and green soap, then washed with a solution of bichloride of mercury, 1-2000; this is followed successively by turpentine, alcohol, ether and lastly bichloride again; the incision is made transversely between the fragments, opening the joint; all blood-clot is washed away by continuous irrigation (bichloride of mercury, 1-2000) and the ragged aponeurotic fringe is lifted from between the broken pieces. Each fragment in turn is drilled, beginning one-eighth to one-fourth of an inch behind its fractured edge, going directly through; silver wire is used, about the size of or possibly a little larger than the lead in an ordinary lead pencil, it being filed sharp on each end to facilitate insertion; the pieces are drawn together by main force, and the wire is twisted tightly, holding them in apposition; the ends are then cut, the wire being hammered down flat on the bone; the subcutaneous tissues are then sewed down over the bone with heavy catgut; a drainage-tube is inserted in the wound, coming out of the most dependent part of the outside of the joint, a small incision having been made on the end of a Tait forceps pushed down through the original wound; a small bunch of horsehair drains is then laid across the patella in the same line as the original incision, each end protruding about one inch; the skin is then stitched with silk; the wound is dressed on the third day and the horsehair drain removed and possibly the drainage-tube; however, the tube may be left in until the second dressing if desirable. After ten days the wound should be entirely healed, and at the end of the second week passive motion should be begun, the patella being daily pushed from side to side, each day more forcibly than the preceding; at the end of the third week, flexion should be started and continued daily by the surgeon, until six weeks have elapsed since the time of the operation; the patient then should be allowed to use his limb, keeping up active motion, but carefully, until ten weeks have elapsed since the time of the operation.

The Ileocecal Orifice in Constipation.—W. J. Mayo (*Annals of Surgery*, September, 1900) narrates the case of a woman, aged twenty-one, who gave a history of chronic constipation with attacks of right-sided abdominal tenderness, lasting for several days at a time. These attacks recurred so often that an operation for appendicitis was advised and done; the appendix was found practically normal, except for a few adhesions; it was noticed at the operation that the

small bowel was quite full of material in spite of the previous energetic purgation. At the junction of the ileum and cecum the caliber of the gut was markedly reduced, having the appearance of being constricted as if tied with a string; convalescence was uneventful, but the constipation and pain persisted until four months later, when she was again operated on, the ileocecal coil being exposed. An incision, two and one half inches in length, was made at right angles to the ileocecal orifice, having its center at that point; the wound was sutured transversely after the manner of the Heineke-Mikulicz pyloroplasty, making a very considerable increase in the size of the aperture between the ileum and cecum; recovery followed with a disappearance of both the constipation and localized pain. This case is interesting as throwing some light on the function of the ileocecal valve, which consists of two semilunar folds of mucous membrane situated one superiorly and the other inferiorly, leaving a transverse slit between at the point of junction of the ileum and cecum; immediately at the base of the valves is a circular fold of muscle fibers, forming a constrictor muscle having much the appearance of the pylorus; the main function of this valve seems to be to prevent the too rapid emptying of the small bowel and to maintain some pressure against peristalsis until the process of small-bowel digestion is properly completed; hence, if the barrier to ready egress be excessive, partial retention of small-bowel contents results with small-bowel constipation and its resulting train of symptoms, due to fermentation and absorption.

Adhesions About the Stomach.—A. T. Cabot (*Annals of Surgery*, July, 1900) describes adhesions about the stomach and duodenum not associated with malignant disease or any still active inflammation of that region; these adhesions arise as a result of a variety of inflammatory conditions, *e. g.*, inflammation of the gall-bladder; ulcers of the stomach and duodenum and of the transverse colon extending to the peritoneal coat of the infected viscus, causing it to adhere to the surrounding parts; and inflammations in and about the pancreas, usually so severe as to be fatal. The adhesions may be thin and lax or tough, firm, and thick, their effect depending more upon their situation than upon their density; dense adhesions may give no symptoms if they do not lead to distortion of the organs; while light adhesions between the stomach-wall and the duodenum may produce a decided kink of the pylorus and so interfere with the permeability of this orifice; constricting bands may cause dilatation behind the point of obstruction; the organs usually bound together are the pyloric end of the stomach, the first part of the duodenum, the transverse colon, and the gall-bladder, with adjacent portions of the liver. The previous history of the patient often points to some earlier attack or attacks of biliary colic or of gastric or duodenal ulcer, which may have

occurred many years before and have been followed by a long period of comfort; usually, however, digestive disturbances and pain are the prominent symptoms; the former usually appear as attacks of violent indigestion either continued or with intervals of comfort; the pain is usually a marked feature; it may be moderate in degree or excessive, in which case it is spasmodic and lancinating, not unlike that of biliary colic. When the severe pain occurs as a distinct attack, it usually lasts but a relatively short time, rarely more than a few days, and usually is of a distinctly intermittent character; the pain is usually referred to the epigastrium and the right hypochondrium; in one case the pain which began in the epigastrium extended along the costal border of the right side until it encircled the body, vomiting and inability to take food being present during this time. The diagnosis of adhesions is not easy, but a long-enduring liability to attacks of gastralgia, for which a careful study of the gastric functions fails to suggest an adequate explanation should lead one to expect adhesions; also attacks simulating biliary colic without jaundice justify a like suspicion; in either case an exploratory operation is not only justifiable but is called for, the operation being easily done and not fraught with danger.

New Test for Typhoid in Feces.—That the Eberth bacillus is always present in the stools of those affected with typhoid fever and absent in other conditions is a proposition the truth of which can be demonstrated, in the opinion of L. Rémy (*Public Health Reports*, September 21, 1900), by the employment of a proper culture medium. The contradictory and inconclusive results obtained by previous investigators he ascribes to the unsatisfactory character of the gelatin used, even the potato gelatin of Elsner, the most successful medium; being unreliable on account of its variable chemical composition. To overcome these objections, the author prepared a differential gelatin, closely resembling the potato in chemical composition. The constituents are as follows: Distilled water, 1000 grams; asparagine, 6 grams; oxalic acid, 0.5 gram; lactic acid, 0.15 gram; citric acid, 0.15 gram; disodic phosphate, 5 grams; magnesium sulphate, 2.5 grams; potassium sulphate, 1.25 grams; sodium chloride, 2. With the exception of the magnesium sulphate, the above salts are powdered, mixed with the water and 30 grams of Witte's or Grubler's peptone and heated under pressure for a quarter hour. The solution is then added to 120 to 150 grams of gelatin, shaken and made slightly alkaline with soda solution. After a second heating similar to the first, one-half normal solution of H_2SO_4 is added until 10 cc. of the solution are neutralized by 0.2 cc. of one-half normal soda solution. The solution is then shaken, placed in a steam sterilizer for ten minutes and filtered, after which the acidity is verified. The magnesium sulphate is now added and the solution is placed in tubes containing 10 cc. each and

is sterilized three times. Just before using, 1 cc. of a 35-per-cent. solution of lactose and 0.1 cc. of a 2.5-per-cent. solution of carbolic acid are added to each tube. By means of this differential gelatin, 31 observations were made of the stools of 23 typhoid-fever patients. In three instances only were the results negative, and in each of these three cases other observations were positive. In no case, therefore, was there failure to find the Eberth bacillus. On the other hand, it was absent from the stools in every one of 12 cases of various other diseases. As a result of his investigations the author believes himself justified in claiming that his differential gelatin is a practical and certain medium for the isolation of the typhoid bacillus in the presence of the colon bacillus, by the plate method. Further, that the Eberth bacillus is the pathogenic element in typhoid fever and that its presence in the stools is the only sign which is competent of itself to establish the diagnosis of the disease.

Anti plague Serum.—H. D. Geddings (*Public Health Reports*) believes that both the Haffkine prophylactic and the Yersin antiplague serum have demonstrated their great superiority to all other known measures for the prevention and cure of bubonic plague. For the latter purpose, the Yersin serum only is available, as the prophylactic, being itself a product of the plague bacilli, is distinctly detrimental to a person already infected with the disease. As preventives both remedies are effective, but the differences between them are so marked and numerous that there is seldom any question in given circumstances as to which should be preferably employed. Where actual infection is probable, as in the cases of those in the immediate vicinity of a plague patient, the Yersin preparation is indicated, as its action is prompt and directly antagonistic to the malady. On the other hand, its immunizing effect is so temporary, about two weeks, and its production is so expensive that it is not eligible for the protection of those not already exposed, especially if in large numbers, as when an entire community is threatened by an advancing epidemic. In such circumstances recourse should be had to the Haffkine prophylactic which can be produced rapidly in large quantities and at small cost. Its inoculation is followed in a few hours by a local and constitutional reaction which, though generally mild, may be fairly severe, in which respect it contrasts unfavorably with the Yersin serum. The latter possesses the additional advantage, when properly prepared, of keeping almost indefinitely, whereas the former deteriorates under the influence of air and light and cannot be depended on for a longer period than six months. Although the immunity conferred by the Haffkine prophylactic usually persists for several months, it is not absolute, as is demonstrated by the not infrequent development of the plague in vaccinated persons, but the death-rate is low in such circumstances. Experience has shown the advi-

sability of a second inoculation about ten days after the first. The Yersin serum is a true antitoxin, produced by subjecting a horse to successively stronger injections of plague toxin, the process requiring the greater part of a year. Occasionally its completion necessitates the inoculation of the animal with a live culture of the bacillus. The Haffkine prophylactic, on the contrary, is a toxin prepared by growing cultures of the bacillus for a month and then destroying the organisms by subjecting them to a temperature of 70° C. for two hours. As illustrative of the utility of both first and second vaccinations with the prophylactic, the author quotes the following statistics of observations made in Shanvar, India: *Inoculated once*, 5712, attacks, 69, deaths, 31; *inoculated twice*, 3349, attacks, 9, deaths, 5; *not inoculated*, 5614, attacks, 957, deaths, 756.

Malignant Diphtheria.—That an attenuated diphtheria germ may, in new soil, cause the most virulent form of the disease is well shown by Dr. Coriveaud (*Journal de Médecine*, September 9, 1900). In an epidemic of mild cases one child had recovered and was dismissed from the hospital as cured, but had still a slight discharge from a suppurating submaxillary gland. A few days later, in a neighboring town, it slept with another child, and nine days afterward this latter developed an extreme diphtheria poisoning and died. Six days later a brother was attacked, followed in eight and eleven days by two other children. All exhibited marked asphyxia, not due to the membrane but to the excessive toxemia; all were given antitoxin, but each succumbed within two days of the attack.

Xanthoma Diabeticorum.—A case of this relatively infrequent disease of the skin is reported by Samuel Sherwell and James C. Johnston (*Jour. Cutaneous and Genito-Urinary Dis.*, September, 1900). The patient was an American woman, forty years of age, and somewhat plethoric and stocky in build. She had always been in fairly good health; was married and had had four children and four or five miscarriages. These apparently had no effect upon the skin lesions. The first lesions were noticed about five or six years previously, first on the arms, elbows, the knees and the nates. They have been relatively less marked during the summer months, but have been fairly constant. They have gradually increased in extent and intensity each year. During the last year the symptoms have become so very distressing that she could get no relief night or day. There was great pain on using her hands, on standing or walking, and on sitting or lying down. Sleep was almost impossible. The tubercular masses in the skin felt and caused a sensation as if peas or shot were in her skin when she laid herself down. If one looked at the patient standing nude a little distance from the observer, the eruption might have been taken for a case of variola at the height of the pustular and confluent stage of that disease.

There were narrow, dark-red inflammatory halos around all the tuberculate and conglomerate masses, some of which rose as much as a quarter of an inch above the level of the skin. The tops of the elevations were rather conical in shape, of a bright yellow (xanthomatous) character, and were hard and resistant to the touch. These lesions were most numerous on the extensor surfaces of the arms and legs, and on the back and nates. No part of the body was free from the lesions, except the eyelids. On examination of the patient's urine it was found to be normal in reaction, sp. gr., 1021, slightly albuminous, and to contain an enormous quantity of sugar. From the history of the amount of water she passed, her thirst, etc., it is probable that the glycosuria had existed since the skin lesions appeared. On antidiabetic diet and mild laxative alkaline treatment she improved considerably. The glycosuria has not disappeared, but is now comparatively slight. Sherwell believes that this disease is not a true xanthoma, but an inflammatory condition resembling that affection, occurring in diabetics. Johnston describes at some length the histology of the disease. Two illustrations of the case accompany the paper.

Tuberculous Lymphadenitis and Pseudoleukemia.—The idea that Hodgkin's disease is of infectious origin is by no means a new one. Many bacteria have been isolated from the glands of such cases, but recently careful investigations have proven the tuberculous nature of severe cases agreeing clinically with those of pseudoleukemia, and showing after death lesions pointing to the latter condition. F. R. Crowder (*N. Y. Med. Jour.*, September 15 and 22, 1900) reports in detail a case which appeared clinically to be one of pseudoleukemia and describes fully the lesions which were afterward found in the various organs, proving how difficult it is even with the aid of the microscope to distinguish between a tuberculous and non-tuberculous glandular hyperplasia. The tissue is not at all characteristic of tuberculosis and when the germs are few they may be difficult to demonstrate. The inoculation experiments are frequently necessary. In the author's case the diagnosis of pseudoleukemia had been made, but microscopic examination showed the tuberculous nature of the condition. Two inoculation experiments proved negative in this instance. There was no new or old tuberculous lesion of the lungs, but there were tubercles in the liver, spleen, kidneys and peritoneum, and further investigation showed that the other lymphatic and visceral lesions which pointed plainly to pseudoleukemia were really tuberculous in origin. The literature upon the subject is reviewed and a large number of cases which appeared to be examples of Hodgkin's disease have been found by bacteriological experiments to be due to the tubercle bacilli, although the clinical symptoms and the anatomical lesions were characteristic of pseudoleukemia. It is not fair to say that all

pseudoleukemias are even probably tuberculous in origin, but it has been abundantly proven that tuberculous lymphadenitis may give rise to all the symptoms and anatomical findings of that disease and undoubtedly more complete analyses in the future will demonstrate this specific cause in a large number of so-called pseudoleukemic cases.

Acute Leukemia.—Being among the rarest of blood-diseases, the acute form of leukemia is not as a rule described in the usual text-books. A. Dennig (*Munch. med. Woch.*, Sept. 18, 1900) finds that it may occur at any age, though most often in adult males, and that it comes on suddenly in those previously in the best of health. Extreme malaise and weakness force the patient to go to bed; soon headache, pains in the limbs and often difficulty in deglutition are added. Stabbing pains in the splenic region, palpitation of the heart, vertigo and syncope may develop. Furthermore an increasing pallor of the skin, fever and hemorrhages from the skin, mucous membranes or into the organs, appear early. The gums are often swollen and bleeding and scurvy may be suspected. In the subsequent course of the disease the spleen usually swells, but rarely to the degree of chronic leukemia, and the same may be said of the liver and the lymph-nodes. Bronchitis or bronchopneumonia, hemic murmurs, increased frequency, smallness and irregularities of the pulse and tenderness of the bones are often noted. Of great diagnostic importance is the examination of the blood. There usually is a considerable increase in the mononuclear elements varying from the size of a red cell to twice as large and possessed of a large, round, faintly-staining nucleus surrounded by a narrow zone of protoplasm which is not granular and which possesses no special affinities for neutral or basic dyes. The red cells show the changes of a severe anemia. The appearance of the blood is not, however, absolutely diagnostic since a similar picture may be found in chronic lymphatic leukemia. Too few cases have been observed to prove the asserted micro-organismal character of the disease. The prognosis is unfavorable, since no known remedies stay its progress.

Diagnosis of Gout.—The frequency of gout and the ease with which it may be overlooked is dwelt upon by A. Strumpell (*Munch. med. Woch.*, Sept. 18, 1900). Although many different joints may be involved, these most frequently belong to the lower extremities and are most distally situated from the trunk and the first metatarsophalangeal articulation is rarely spared. Another important diagnostic feature is the usual monarticular character of gout; at all events it is very rare to have more than two or three joints affected at the same time. The short duration and the great frequency of the attacks are peculiar, as is also the appearance of intense swelling which a gouty joint gives. Not very rarely chronic gout is mistaken for arthritis

deformans, but the history of previous acute attacks and the presence of tophi and perhaps of a sclerotic kidney will prevent this error. Often errors arise in that advanced gout manifests itself by symptoms not emanating from the joints, as tarsalgia, achillodynia, or more seriously as chronic nephritis or arteriosclerosis. An interesting fact is that two other diseases of nutrition, diabetes and obesity, not rarely occur conjointly with gout, so that the metabolism of all three great classes of foods may be disturbed together. Disturbance of proteid metabolism, causing gout; of carbo-hydrate reduction, diabetes and of fatty obesity. The etiology factors chronic alcoholism and lead intoxication may aid in doubtful cases in making a diagnosis.

Action of Chrysarobin.—From a microscopical study of the skin treated with chrysarobin plaster, M. Hodara (*Monatshft. f. prakt. Dermatolog.*, Sept. 15, 1900) finds that this causes a homogenization and necrosis of the granular and part of the prickle-cells of the epidermis with pigmentation of the lower cornified strata. If used in greater strength there will be edema and severe inflammation of the cutis and intra- and intercellular edema of the prickle-cells of the epidermis with the formation of seropurulent vesicles. Below the necrotic layers a new and more extreme layer of prickle- and granule-cells will develop.

Anilin Blue in Malaria.—Since its introduction by Laveran in 1891, methylen blue has been used with varying success not only in the treatment of malaria, but also in other diseases, such as persistent headache, neuralgia, rheumatism and as a sedative in insanity. Contrary to the earlier view, however, it has been found that in spite of the affinity of the malarial parasite for this substance staining of the hematozoon does not take place in the circulating blood and some other theory must be advanced regarding its action. In order to determine whether this was due to the chemical constitution of the agent, Alexander Iwanoff (*Deutsch. med. Woch.*, Sept. 27, 1900) experimented with another dyestuff, choosing anilin blue which differs from methylen blue in composition and also in belonging to the acid not the basic group of stains. Fifteen carefully selected cases were treated with anilin blue alone, receiving 5 grains three times a day, with the result that in 7 the malady promptly terminated by lysis and the organism disappeared from the blood. No unpleasant by-effects were noted; in particular, the distressing vesical and urethral irritation so often accompanying the use of methylen blue was entirely absent, while the percentage of cures is about the same for the two drugs. The conclusion reached is that the action of methylen blue is independent of its chemical formula, other stains having the same effect, and that in the anilin products there still remains a vast amount of unexploited therapeutic material.

THERAPEUTIC HINTS.

Baldness.—About once in two weeks the scalp should be thoroughly cleansed with tincture of green soap as a shampoo, and the following well rubbed in once a day:

R Resorcin	4.0	(3i)
Ac. salicyl.....	1.0	(gr. xv)
Ol. ricini.....	0.5	(gtt.viiij)
Alcohol	30.0	(3i)

After two or three weeks this latter may be replaced by

R Hydrarg. chlor. corros..	0.5	(gr. viij)
Betanaphthol	3.0	(gr. xlv)
Ol. ricini.....	1.0	(m xv)
Alcohol	90.0	(3iiij)

Albuminuria of Pregnancy.—James W. McLane orders rest in bed, plenty of fresh air, skimmed-milk diet, with no alcoholic liquors, half a gallon of water (not mineral water) a day to flush out the kidneys, a daily warm bath, and when needed the following pill:

R Ext. Colocynth. Comp.	0.1	(gr. ij)
Mass. Hydrarg.....	0.09	(gr. iss)
Ext. Nucis. Vom.....	0.01	(gr. 1/7)
Pulv. Aloes.....	0.03	(gr. 3/4)

For an acute case he advises venesection, if plethoric, or dry or wet cupping over the loins, with free catharsis by compound jalap powder, or calomel, gr. x, and sod. bicarb., gr. xx. If there is no relaxation of the symptoms, induce labor as soon as the child is viable.

Ichthyol in Trachoma.—M. Eberson (*Therap. Monatsh.*, Vol. XIV., p. 313) gives the clinical histories of five cases of trachoma, illustrating the good results afforded by ichthyol in this otherwise intractable disease. He differentiates two forms of the disease, a dry or mild and a moist or severe. The former is best treated with copper sulphate, but the latter requires more energetic measures. The method followed by the author is first to wash the everted lids with a solution of corrosive sublimate, 1-5000, to remove pus, mucus, etc., and to cause a slight mechanical hyperemia. The friction must not be too severe, otherwise the conjunctiva is made to bleed. A few drops of pure ichthyol are applied with the rounded end of a glass rod and spread out in a rather thick layer. This is allowed to remain a few seconds, or until the patient feels the burning pain no longer, when it is then washed away with clean water by means of cotton. It is sometimes advantageous to employ a fifty-per-cent. ichthyol solution for the first few applications, and then to proceed to undiluted applications. This treatment relieves the severe, annoying symptoms accompanying trachoma, without incurring noteworthy pain, and without giving rise to cicatrices. At the same time, it almost entirely removes all danger of infection.

Urticaria.

R Pul. Calaminæ	8.0	(3ii)
Aq. Calcis	250.0	(3viii)
Acidi Carbolicæ	2.0	(3ss)

M. Use as a lotion.

If not sufficient to allay irritation, and burning is extreme:

R Menthol	0.6	(gr. x)
Adipis	30.0	(3i)

Typhoid Fever.—A. Schmidt (*Montreal Med. Jour.*, Aug., 1900) calls attention to the value of the almost forgotten "Woodbridge treatment." Three different formulæ are used, as follows:

No. 1. Res. podoph. 0.00006 (gr. 1/960)

Calomel

Guaiacol carb.

Menthol ... aa. 0.004 (gr. 1/16)

No. 2 is the same except that guaiacol is increased to 0.015 (3/4 grain), and thymol, 0.004 (1/16 grain), is added.

No. 3. Guaiacol carb..... 0.18 (gr. iiij)

Thymol 0.06 (gr. i)

Menthol 0.03 (gr. ss)

Eucalyptol 0.3 (m v)

In capsule.

During the first forty-eight hours give No. 1 every fifteen minutes while awake. After twenty-four hours give also No. 2 every fifteen minutes until five or six free evacuations of the bowels are secured. Then No. 1 is discontinued and No. 2 given less frequently, so as to keep the bowels moving once or twice a day until the temperature is normal. On the third or fourth day No. 3 is given, one every three or four hours. About the fifth day No. 2 is discontinued, and teaspoonful doses of saturated solution of chlorate of potassium are administered every three hours. After one or two days this is stopped and No. 2 again exhibited as freely as possible without causing too frequent evacuations of the bowels. Should the slightest symptom of ptyalism supervene, No. 2 must be discontinued and the chlorate of potash resumed. During the entire treatment every dose of medicine must be washed down by water.

Fireman's Colic.—Firemen on board ship are subject, writes Willis Cummings (*Merck's Archives*, Aug., 1900) to a "colic," with acute pain, extreme prostration, bloodshot eye, much thirst, labored breathing, irregular heart, and agonized expression, a condition which does not yield to *Sun Cholera Mixture* or other cramp remedies. As these men drink large quantities of water, he has been able to prevent this colic by adding to each gallon of water

Calcium phosphate

Sodium phosphate

Potassium phosphate...aa. 17.0 (256 grs.)

with a little oatmeal and ice. A man drinks approximately this amount in four hours while "firing." It was noticeable that the men taking this mixture had much less craving than usual for alcoholic drinks.

THE MEDICAL NEWS.

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OF MEDICAL SCIENCE.

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SATURDAY, OCTOBER 27, 1900.

NEW YORK'S PLAGUE.

IF one of our yellow journals should blurt out in ten-inch headlines, "Eight thousand dead of the Plague in New York City, Thirty thousand more likely to die," it is probable that the city would be aroused to the point of panic, and that prayers and dollars would be poured out wildly to check the spread of the disease. And yet because a plague which during 1900 carries off 8000 of New York's citizens is consumption, a respectable family disease, instead of the loathsome rat and flea bubonic plague, it will take oratory, wire-pulling, persuasion, threatenings and sentimentality to present to the many-minded public any conception of that duty which their own common sense should point out to them, *viz.*, the provision of municipal treatment for the disease, to cure incipient cases and to check the spread of infection.

For forty-five years, ever since Peter Cooper headed the first movement in this direction, there has been a desire on the part of enlightened citizens and physicians to bring about such a reform, but for lack of municipal encouragement it has found expression only in private charities. In the meantime between one and two hundred thousand of the inhabitants have been cut off before their time by this, the city's scourge.

It is an easy thing to bandy words on the subject of reform. The optimist would have tuberculosis become an extinct disease, and all its saved victims centenarians; the pessimist sees in it one of the natural means of wiping out the surplus, for the benefit of the survivors. The man of common sense, and especially the physician, knows that it is a death more cruel to the laboring poor than the sudden terrorizing plague, and a death that though inevitable to some can be prevented for most with proper treatment. He sees in it a cause of desperate poverty, and of wide contagion, for the streets, the air, the public conveyances are full of it; and there is no rattling of bones, or hollow cry, as of the leper, to warn the passer-by to beware.

Perchance there was the same lethargy in the fabled city, when the hundred young men and maidens were led out each year to the Minotaur. Impossible to kill him! All must die! and what an expense to the commonwealth to force a war on the monster! And so the annual 8000 deaths of our city cause us no particular alarm, though every man, woman and child that walks the streets knows vaguely that it may be his turn next.

For a practical straight-forward discussion of the subject we commend to our readers the article by Dr. Alfred Meyer, "The City and Its Consumptive Poor," in this issue, in which he brings the subject down to the level of dollars and cents, and puts the matter in a strong, plain light; so that the physician, the politician, the tax-payer and the philanthropist can all see the subject in its practical aspects. We would also refer them to the discussion held at the New York Academy of Medicine (see p. 671) of this issue.

It is not the policy of New York City to recognize a need and then beg off on the ground of expense or expediency. The discovery of the infectious nature of tuberculosis adds the unanswerable argument to all the philanthropic and economic arguments of the last half century. To dally with the question another fifty years, even for another decade, is to play the part of the improvident householder who buys rare pictures and rugs, and engages expensive teachers for his children, but neglects his plumbing.

Our city parks, and well ventilated schools, our museums and libraries, are all essential to the city's prosperity, but down at the very basis of our municipal being is the need to observe the laws of health.

THE PROBLEMS OF GASTRIC ULCER.

THE closer analysis of conditions affecting the gastrointestinal canal is yearly becoming more prominent. In this age in which the frying-pan is characterized as the great enemy of civilization, the general practitioner welcomes any addition that can increase his diagnostic acumen or his facilities for treatment of dyspeptic ills. For this reason a recent paper by Dr. Joseph Frank Payne (*British Medical Journal*, September 29, 1900) is of interest.

From a study of the statistics of St. Thomas' Hospital, London, he is led to believe that there is an actual increase in the number of patients suffering from gastric ulcer. From 1870 to 1895 the numbers have gone from 30 to 216. That this increase is not the result of better diagnostic methods is evidenced by the fact that the fatal cases have increased in about the same proportion and certainly these have been recognized post-mortem. He therefore propounds the question, Is the disease more common than formerly and does it affect people of a social grade higher than the typical servant class in which it is so commonly described?

The question of diagnosis has not varied much for many years. The cardinal symptoms are still pain in the stomach at certain times, referred to definite locations; gastric irritability with vomiting of food and hemorrhage, evidenced in the vomit or stools. One new diagnostic feature alone has been added within the past thirty-five years, that of hyperacidity of the gastric fluid, due to excess of hydrochloric acid. The impression gained is that hematemesis associated with other gastric symptoms is one of the most trustworthy of all the signs. It is not positively diagnostic however.

The prognosis is good but a striking contrast in this respect is to be noted between men and women. In males 22 per cent. of his patients died, while among the females but 6 per cent. succumbed. Recurrences are quite prone to happen.

On the important subject of treatment Dr. Payne has a number of suggestions. Rest is an essential. The withholding of all food from the stomach is imperative and rectal feeding is clearly indicated. Notwithstanding theoretical objections relative to the non-absorbability of the colon mucous membrane, the use of peptonized food is of value. Plain milk or unmodified egg preparations are not used by Dr. Payne. The usual denial of water to quench thirst with the

substitution of small lumps of ice is held to be unnecessary. Water may be given in moderation. It is moreover a distinct adjunct to the intestinal feeding in the maintenance of the patient. One week of rectal alimentation without water is badly borne, but with water patients bear up well for weeks or even longer periods. The main danger in rectal feeding is not emaciation but heart collapse, and during the second week of such feeding great care is to be observed.

The occurrence of acetoneuria accompanying colon alimentation is interesting and suggests the query of its origin. Is it a product of the gastric ulcer or is it due to the type of feeding, or the extreme restriction of the diet? Of drugs, the bismuth preparations and nitrate of silver have promised most. Their action is entirely local, and their suitability appears to depend on the fact that they are not absorbed, or very slowly, and therefore do not produce vomiting or general toxic effect. The question of the treatment of perforation is purely surgical.

THE BACTERIOLOGY AND THE SERUM-TREATMENT OF WHOOPING-COUGH.

THE marked infectiousness of whooping-cough determines that disease so clearly to be of bacterial origin that it must be considered a little disappointing that the actual causative factor has not yet been isolated and the way for the production of a protective and curative antitoxin opened.

Even before the science of bacteriology had attained its present development, efforts were made to discover the existing agent of pertussis, but the first important contribution in this connection was made in 1887 by Afanassiew, who described a minute rod in the expectorated matters from children suffering from the disease, and which, when injected into the trachea of young dogs, excited paroxysms of whooping-cough. These observations were subsequently confirmed by a number of investigations. Meanwhile, however, Ritter, in 1892, described a diplococcus as the etiologic agent; and, then, Czaplewski and Hensel, in 1897, isolated a small bipolar rod resembling the influenza-bacillus; although inoculation-experiments were not in either case successful. These latter observations also have been confirmed, among others by Joseph Walsh and G. Arnheim (*Contributions from the William Pepper Laboratory of Clinical Medicine*, Philadelphia, 1900, p. 450; *Berliner klinische Wochen-*

schrift, 1900, No. 32, p. 702); the former, in a series of twelve cases with one autopsy, finding the Czaplewski-Hensel bacillus in the expectorated matter in eight of the nine cases examined and in the tissues after death, and the latter obtaining similar results in forty-four cases, including three autopsies. Examination of the sputum from a child at the height of an attack of whooping-cough, spread upon a cover-slip and exposed to the action of dilute carbol-fuchsin, will reveal with powers of sufficient magnification a large number of small bacilli, sometimes arranged in short chains, stained at the extremities, generally without, but sometimes within, the cells. The organisms can be stained also by the methods of Gram, Weigert and Escherich. They can be cultivated from the washed sputum by inoculation upon blood-serum plates.

The weight of evidence would thus seem to indicate that the Czaplewski-Hensel bacillus is the actual cause of whooping-cough, in spite of the failure to induce the disease in animals by experimental inoculation. Walsh has, however, gone a step further in this direction, having been led by the unanimity with which is emphasized the immunity conferred by one attack of whooping-cough to subsequent attacks, to undertake serum-treatment; and the subcutaneous injection of blood-serum from individuals who had previously recovered from the disease was followed by distinct amelioration in the symptoms. The experiences recorded are insufficient for definite conclusions, but they at least justify further observation along similar lines.

ECHOES AND NEWS.

NEW YORK.

Craig Colony for Epileptics.—This admirable institution is now caring for 615 epileptics and hopes to take care of 720 by January, 1901, and 840 by July 1, 1901.

Woman Physician Sues.—Dr. Anna L. White obtained judgment for \$467 against a noted playwright in one of the city courts. The playwright guaranteed the bill for services rendered to a friend.

Railway Surgeons.—The annual meeting of the New York State Association of Railway Surgeons will be held at the Academy of Medicine, New York City, on Thursday, November 15, 1900, under the presidency of Dr. J. L. Eddy of Olean. C. B. Herrick, secretary.

Silver Medal to Dr. Baruch.—At the recent convention of jurors of the World's Fair in Paris, Dr. S. Baruch of this city was awarded a silver medal in recognition of his signal services in bringing about the establishment of free public baths.

Obituary.—Dr. Henry Moreton of 187 Grand Street died in his drug-store at 233 Centre Street October 20, 1900. He was ninety-three years old. He came to this country from England in 1828 with his brother, also a physician.

Dr. John W. Robinson, one of the oldest Wayne County practitioners and prominent in Republican and Masonic circles, fell dead October 20, 1900, of heart disease at his home in South Lyons. He had been County Physician since 1890. He was graduated at the College of Physicians and Surgeons in New York City in the class of 1867.

Dr. Lewis A. Sayre.—At a recent meeting of the Faculty of the University and Bellevue Hospital Medical College the following minute was entered on the records: "The members of the Faculty realize with deep regret their great loss in the death of their late colleague, Professor Lewis A. Sayre, M.D. His long and honorable professional career has shed luster on the calling of his choice and on the medical school to which, at its birth, he plighted his earnest support, and which he sustained with loyal vigor until his death. While bowing in humble submission to the will of Him 'who doeth all things well,' we extend to the members of his family our earnest assurance of sympathy in this their great affliction."

St. Luke's Hospital.—The annual meeting of the Society of St. Luke's Hospital was held last week. The following were elected managers of the hospital: Samuel D. Babcock, George Blagden, Waldron P. Brown, George A. Crocker, Chauncey M. Depew, Theodore K. Gibbs, Anson W. Hard, Woodbury G. Langdon, Benoni Lockwood, George M. Miller, Hoffman Miller, J. Pierpont Morgan, Jr., the Rev. Dr. Henry Motter, Gordon Norrie, J. Van Vechten Olcott, John B. Pine, Moses Taylor Pyne, Charles Howland Russell, William Alexander Smith, J. Noble Stearns, Stephen Baker, William Fahnestock, and George W. Vanderbilt.

Typhoid in Training School.—Six of the inmates of the Boys' Disciplinary Training School, Eighteenth Avenue and Fifty-sixth Street, Brooklyn, are suffering from typhoid fever. Dr. Frederick A. Jewett, Chief Inspector of Contagious Diseases, was notified of the epidemic and took the necessary precautions to prevent the spread of the disease. The first boy was stricken on Tuesday last, but before the disease had fully developed the other boys became ill. At the school it was said that there was no likelihood of the disease spreading.

PHILADELPHIA.

Dr. Richardson.—Dr. Maurice H. Richardson of Boston was the guest of the Medical Club of Philadelphia Friday evening, October 26th.

Congress of Mothers.—The first annual meeting of the Pennsylvania Congress of Mothers will be held at Lancaster, November 2d and 3d.

University of Pennsylvania.—A vacancy in the medical department is that of Clinical Professor of Genito-Urinary Diseases. This is owing to the fact that Dr. Edward Martin has been elected Clinical Professor of Surgery. Candidates may apply to Rev. J. Y. Burk, 400 Chestnut Street, before November 10th.

Obituary.—Dr. Laurence Turnbull died at his home in this city Wednesday, October 24th. He was born September 10, 1821, in Shotts, Lanarkshire, Scotland, and came to the United States when twelve years of age. He was graduated from Jefferson Medical College in 1845 and soon after became resident physician at the Philadelphia Hospital. In 1859 he visited Europe and made a special study of diseases of the eye and ear. Returning to this country, he published a work on the "Use of the Ophthalmoscope," the first in America. His numerous studies on diseases of the eye and ear are known the world over.

Epidemic of Diphtheria.—Diphtheria has reached Camden and a number of cases are reported. A former coroner states that the disease is of the most malignant type.

A Hygienic School.—At the Holman School for Girls, a college preparatory institution, the individual drinking cup for each pupil, as well as germ-free water, is in use. Systematic muscular exercise is considered a necessary concomitant of study.

Philadelphia Hospital.—The Bureau of Charities has appropriated \$130,000 for the erection of new buildings at the Almshouse. The insane department will be enlarged and a building erected for the treatment of infectious diseases.

Statue Purchased.—The Fairmount Park Art Association has purchased the equestrian statue, "The Medicine Man," by Dallin, for \$6000. The statue represents a true type of the American Indian doctor and will be an interesting addition to the statuary of the Park.

Druggists Prosecuted.—The State Pharmaceutical Examining Board is waging determined war against violators of the statutes. Over 200 informations have been made in Pittsburg. Detectives report that State laws have been disregarded in so many instances as to leave only a small percentage of the druggists in the State blameless.

Anesthesia Accompanying Bell's Palsy.—At the Neurological Society, October 22d, Dr. J. Hendrie Lloyd exhibited a patient, a young woman, who had Bell's palsy of the right side. Accompanying this was complete anesthesia of the re-

gion supplied by the fifth nerve of the same side. The anesthesia was thought to be hysterical in origin rather than an extension of the pathological condition from the seventh nerve.

Smallpox.—Three new cases of smallpox were reported last week. Each case was in a different ward. The disease was well developed, but of a mild type. An unusual point is that all three cases are whites, every other patient in the city since last spring having been a colored person.

Application for Hospital Charter.—The Ogontz Hospital for the Insane has applied for a charter. This institution is intended to relieve the overcrowded condition of the Norristown Hospital.

Quarantine Improvement.—The State Quarantine Board has planned several improvements at the station at Marcus Hook. A detention barracks to accommodate 400 patients will be built, a tug for boarding vessels will be provided, and also a floating disinfecting plant.

Dr. Thomas Addis Emmet.—This distinguished gynecologist operated in the clinic of Prof. E. E. Montgomery at the Jefferson Hospital October 23d. He demonstrated his operation for repairing a complete laceration of the perineum and gave a practical talk upon laceration and its prevention during labor. In repairing lacerations Dr. Emmet prefers silver wire sutures, as they act as splints to the parts involved.

New Litters for National Guard.—The officers of each medical corps of the First Brigade, N. G. P., have been presented with two litters, the invention of Mrs. F. E. Chadwick, wife of Captain Chadwick, U. S. N. These carriers are peculiarly adapted for service on the battlefield, presenting the form of a hammock-chair. It is thought that the carrier can also be suspended between two horses and thus be utilized by mounted men.

Pure Milk for Infant Feeding.—The Commission appointed by the Pediatric Society in 1899 has recently made an interesting report. The Commission issues certificates to dairymen after examination of the milk, utensils, cows, etc., has been made by an expert and found to reach a certain standard. Two dairies have obtained this certificate. Others are being improved in order to reach the standard. This method appears to appeal to the business instincts of the dairymen and to be productive of more good than the endeavor to enforce laws. The report emphasizes the appeal made by Dr. Stengel, a member of the commission, at the meeting of the State Medical Society. That appeal was for the appointment of similar commissions by all local medical societies.

State Examinations Again Prominent.—The daily paper which was prominent in investigating the fraudulent examination of 1899 has come out

with a statement regarding the examination of last June. The claim is made that nearly 10 per cent. of the candidates who were granted licenses at that time failed to attain the necessary average. When the members of the Board met and found that the marks on the individual papers did not reach the required total, some of them were raised or the general average was raised. This was done because the political or personal "pull" of these certain candidates demanded that they pass. The allegations of the paper are presumably true, as it is known that candidates for license have been told by political friends that if they are doubtful of the result they will see that the candidates pass. This is another argument in favor of practical examinations instead of, or in conjunction with, the written ones.

CHICAGO.

Quarterly Medical Examination.—The regular quarterly medical examination by the State Board of Health closed October 11th. Forty-one persons took the examination, 27 of whom were candidates for physicians' certificates, 8 for certificates of midwife, and 6 were classed under the head of "other practitioners."

The Fenger Banquet.—It is said that more than 130 medical societies have thus far appointed representatives to attend this banquet. The President of the American Medical Association, Dr. Charles A. L. Reed of Cincinnati, Ohio, will act as toastmaster.

Free Care for Epileptics.—The Illinois Home for the Treatment and Care of Epileptic Patients is the only institution in the State where the treatment of these unfortunates is free. The object of the home is the establishing of an epileptic colony and the erection of a building for this large class of patients, with farms, workshops, a theater, reading-room, gymnasium, and equipment for restoring the mental faculties of curable epileptics, and to give a miniature world to incurable epileptics. Incarceration of epileptics in insane asylums and the abuse of persons who fall in a fit on public streets are to be prevented. In receiving and treating patients no exception will be made as to color, creed, race or religion.

Saint Gerard's Hospital.—An institution by this name was dedicated three or four days ago. Dr. J. B. Murphy will be the chief surgeon of the hospital.

Medical Legislation of Illinois State Medical Society.—This Committee has been studying the existing medical laws and the means for their improvement. The Committee sees plainly that it will be unable to secure or maintain the most desirable legislative measures without a more complete organization behind it. Among the questions which are demanding solution in Illinois are a thorough organization of city, county and State boards of health with proper relations

to each other; more adequate sanitary laws, especially those relating to schools, manufactories, and quarantine; to secure legislation to protect against tuberculosis and other preventable diseases; to protect against vicious legislation, for example, antivivisection and antivaccination; to protect from blackmailing and to protect against unjust malpractice suits; to secure proper recognition of expert testimony; to protect the sick from quacks and charlatans; to protect and improve the medical practice act and to secure a special board of medical examiners, aside from the Board of Health; to secure proper regulations for the protection of drinking waters, and to aid in securing just and impartial legislation whenever and wherever needed; to secure equitable medical laws throughout the United States, with some practical form of reciprocity between the States; to secure the appointment of reputable and honorable medical men wherever public services of physicians are required throughout the State. The Committee hopes to have hearty cooperation in pushing forward the work along these lines.

Officers of the Chicago Gynecological Society.—The annual meeting was held October 19, 1900, and the following officers were elected: President, Dr. Reuben Peterson; First Vice-President, Dr. E. Lester Frankenthal; Second Vice-President, Dr. Henry Banga; Secretary, Dr. William H. Rumpf; Treasurer, Dr. Addison H. Foster; Editor, Dr. Charles S. Bacon, and Pathologist, Dr. Emil Ries.

Smallpox and Property.—A suit was recently brought against the City of Chicago by the owners of land near the smallpox hospital, opened by the municipal authorities on Lawndale Avenue in 1896, to recover damages alleged to have been sustained by their property in consequence of the proximity of this objectionable institution. The plaintiffs were unsuccessful in the court of first instance and have just been finally defeated in the Supreme Court of Illinois. There was no charge that the City had been in any respect negligent in the care and conduct of the hospital or that it was any more of a nuisance than such an institution must be of necessity. The Supreme Court holds that the erection and maintenance of a smallpox hospital within the limits of a city may be justified in the exercise of the police power of the State, and that there is no difference in principle between the right of a municipality to establish such an institution and its right to build a jail, fire-engine house or calaboose. The City would be liable only for an abuse of discretion in locating such a hospital, of which there was no suggestion in the present case.

Appointment of Dr. Webster.—Governor Tanner has appointed Dr. George W. Webster as a member of the State Board of Health to succeed Dr. R. F. Bennett, who has left the Board to become Superintendent of the Southern Hospital for the Insane at Anna.

The Senn Room.—The Senn room in St. Joseph's Hospital, endowed with \$10,000 by Dr. Nicholas Senn, has been opened formally. The room is completely furnished by its donor, and the endowment fund will remain intact for its perpetual maintenance. The room is large and spacious, and is considered one of the best in the institution. The furnishings include a library of 500 volumes. The sisters of the institution are having painted a large picture of Dr. Senn, which will also be given a place in the room. During Dr. Senn's lifetime he will have the privilege of designating patients for the room, who will be cared for without expense.

Medical Inspection of Schools.—One or two members of the Board of Education are opposed to the medical inspection of children who attend the public schools on the ground of expense. Friends of medical inspection, however, are determined that this department shall not be abandoned in order to provide funds for the maintenance of kindergartens or other branches of instruction. Parents who look upon medical inspection as a sort of life-saving station in the public schools are protesting to the Board from all over the city. It is more important that the schools be kept free from epidemics than that the full program of studies be carried out. During three and a half months of the last school year 76,000 examinations were made, and 4539 cases of contagious disease were discovered and excluded from the schools. Since September 17th of the present year 7249 examinations have been made and 510 contagious cases have been excluded. These figures speak volumes for the continuance of the system of medical inspection.

GENERAL.

Wyoming State Medical Society.—At the last annual meeting of this body, held October 9, 1900, at Cheyenne, the following papers were read: "The Treatment of Disease with the Alkaloids," by Dr. S. B. Miller of Laramie, Wyo.; "Periosteal Osteosarcoma of the Upper Extremity of Femur," by Dr. Leonard Freeman of Denver, Colo.; "Enteric Diseases of Children," by Dr. J. B. Wilson of Laramie, Wyo.; "Venereal Disease and Its Relation to Marriage," by Dr. P. Hyrup Pederson of Laramie, Wyo.; "Dysentery," by Dr. E. Stuver, A.M., of Ft. Collins, Colo.; "Minor Surgery," by J. Harvey Young of Rock Springs, Wyo.; "Certain Blood Diseases, with Exhibition of Mounted Specimens," by Dr. J. N. Hall of Denver, Colo.; "Mountain Fever," by Dr. R. Harvey Reed of Rock Springs, Wyo.; "Elbow Fractures and the X-Ray," by Dr. W. W. Grant of Denver, Colo.; "Our Present Coroners' Law; with Some Recommendations Growing out of Experience," by Dr. W. C. Burke of Rock Springs, Wyo.; "Meningitis," by Dr. I. R. Swigart of Laramie, Wyo.; "Our State Laws in Reference to Contagious Diseases," by Dr. R. Harvey Reed of Rock Springs, Wyo. The following officers were elected for

the ensuing year: President, Dr. E. E. Levers; First Vice-President, Dr. S. B. Miller; Second Vice-President, Dr. W. A. Jolley; Third Vice-President, Dr. Charlotte Hawk; Secretary and Editor, Dr. J. R. Swigart; Treasurer, Dr. W. L. Wicks. The next annual meeting will be held at Evanston, Wyoming.

Obituary.—Dr. William F. Reilly, an eminent physician of Southern Pennsylvania, died at Carlisle, Pa., October 20, 1900, from stomach hemorrhages, aged thirty-eight years. He was connected with the National Guard of Pennsylvania for eleven years as an assistant surgeon, and served in the Spanish war.

Riotous Medical Students Fined.—The medical students who were arrested for breaking up the meeting of Mr. John Alexander Dowie, the Zionist of Chicago, in London were punished with small fines.

St. Luke's Bethlehem, Pa.—Generous gifts have been announced by Dr. Estes of St. Luke's Hospital, in Bethlehem, Pa., including a fund of \$10,000 from former President E. P. Wilbur of the Lehigh Valley Railroad for the support of a children's ward, and a new \$20,000 operating ward, to be erected by Samuel Thomas of Hokendauqua, Pa.

The Reformation of America.—We are glad to learn that the *Bristol Medico-Chirurgical Journal* is not responsible for the statement quoted in our issue of September 29, 1900. It was the product of its former editor and had been inserted in a reprint issued by that gentleman.

CORRESPONDENCE.

VENTROSUSPENSION OF THE UTERUS.

To the Editor of the MEDICAL NEWS:

DEAR SIR: Your issue of October 6th publishes a description of my method of operation on ligamentopexis (Round Ligament Ventrosuspension of the Uterus) by Dr. D. Tod Gilliam of Columbus, Ohio, which gives the details of the operation, but does not mention my name.

My method was first published and illustrated in the *Centralblatt für Chirurgie*, August 21, 1897. It was also reported by Dr. C. A. von Rindohr before the New York Obstetrical Society in the same year, and was the subject of a graduation-thesis at the University of Paris under the auspices of Poirier, Berger, Guyon and Albarran. Garrigues's "Diseases of Women" also contains it, and the *American Journal of Obstetrics and Diseases of Women and Children*, Vol. XLII, No. 3, 1900, gives a description of the original operation and its modifications.

I must assume that all this was entirely unknown to Dr. Gilliam, and that on being informed of the facts he will correct the omission.

CARL BECK.

New York, October 9, 1900.

OUR LONDON LETTER.

[From Our Special Correspondent.]

LONDON, October 9, 1900.

THE OUTBREAK OF PLAGUE IN GLASGOW APPARENTLY TERMINATED—MALARIA AND MOSQUITOES—COLLECTION AT THE SOUTH KENSINGTON MUSEUM OF MOSQUITOES FROM ALL THE COLONIES FOR IDENTIFICATION AND CLASSIFICATION—THE SUPPLY OF PURE MILK TO HOSPITALS—THE GENERAL ELECTION—MEDICAL QUESTIONS INVOLVED.

THE Glasgow outbreak of plague fortunately seems to have run its course, thanks no doubt to the prompt and vigorous measures taken by the authorities of which I have already informed you. For more than a week no fresh cases have occurred. The total number of cases admitted to hospital is 27, of which 5 have been fatal. Only 8 cases have been severe. Seven were so mild that, but for their association with other cases, the suspicion of plague would not have been aroused. Over 60 persons who have been in association with plague patients have been immunized by subcutaneous injections of Yersin's serum in doses of 10 cc. Of these 2 have exhibited the disease in a very modified form.

The question of malaria and mosquitoes is receiving great attention here. In a previous letter I forwarded you an account of the brilliant and dramatic demonstration of Dr. Manson's theory, which has been carried out with the help of the Government in the Roman Campagna and also in the London School of Tropical Medicine. But in other directions also the Government has been active. In 1898 a committee was jointly appointed by Mr. Chamberlain, the Colonial Secretary, and by the Royal Society to exercise a general supervision over a scientific investigation of the question. An order was issued by the Governors of all the Crown Colonies to have collections made of the different species of mosquitoes and allied insects and to send them to the Natural History Museum at South Kensington for examination and classification. Directions for collecting, mounting and preserving the insects were drawn up by the Museum authorities and distributed to the Colonies. As a result over 3000 specimens have been received and more are coming in every week. The work of identifying and describing the specimens was first entrusted to Mr. E. Austen, the dipterist on the staff of the Museum. But, as he volunteered for active service in South Africa, the work was transferred to another professional dipterist, Mr. Theobald, one of the few men in England who have studied mosquitoes. He is now engaged in the preparation of a monograph on mosquitoes based on the collections in the Museum. The genus *Culex*, which has been shown to be the medium for the transmission of malaria, is represented in the Museum by 22 specimens, 10 of which are new to science. Unlike the *Anopheles*, *Culex* has not a wide distribution in regard to species, although

the genus is world-wide. One of the greatest distances between any two localities for the same species is Formosa and the Straits Settlements. Some species of *Culex* have a wide distribution; thus, one species has been sent from the following widely-separated localities: Japan, Formosa, Hong-Kong, Malay Peninsula, India, South and West Africa, North and South America, West Indies, and Gibraltar. As many species are obscure, photographs of the wings and drawings of various parts are being prepared, of which figures will be given in the proposed monograph.

Some interesting experiments have been made at Paisley with a view of ensuring a pure milk supply for the patients in the Infectious Disease Hospital. A new byre has been constructed on the most modern principles and is designed to hold 14 cattle. It is ventilated artificially as well as naturally and is better lighted than the usual run of such buildings. A number of cattle were purchased and submitted to the tuberculin test. Those who reacted were slaughtered, so that only healthy cattle were housed. Especial precautions are taken to ensure purity of the milk. When taken from the cows it is immediately put into cans which are fitted with a lock-and-key arrangement, so that they cannot be tampered with on their way to the hospital. Thus the supply of milk to the patients in an absolute condition of purity is ensured.

The country is now in the throes of a general election and several medical questions are involved in the points before the electorate. Though the medical profession is overwhelmingly conservative, a good deal of dissatisfaction is felt with the outgoing Government. Even the *Lancet*, which, like all old and well-established institutions in this country, in matters political on the side of the things which are (how different was the aggressive radicalism of its younger days), attacks the Government on several points, while carefully guarding itself against pronouncing in favor of either party. "There have been lamentable exhibitions of weakness," it says, "in both the great parties in the state in regard to the greatest questions of medical science." The Government has introduced into the Vaccination Acts an unprecedented individual—"the conscientious objector" and deliberately refused to carry out its promise of a "Revaccination Act." It has thrown away an opportunity for guarding the public from gross injury at the hands of companies posing as medical practitioners. Bills for amending the lunacy laws, improving the position of medical officers of health and a very uncontroversial bill for amending the Medical Acts, have failed to pass for the want of interest of the Government in non-political questions. On the highly important Midwife Bill it did absolutely nothing.

A Correction.—Dr. Eugene Wasdin desires to call attention to the fact that in his letter of the 13th inst. in the *MEDICAL NEWS*, the word opposite was substituted for the word *opposite*.

SOCIETY PROCEEDINGS.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

Twenty-Sixth Annual Meeting, Held at Asheville, North Carolina, October 9, 10 and 11, 1900.

THE Association met at the Battery Park Hotel under the presidency of Dr. Harold N. Moyer of Chicago.

Addresses of welcome, on behalf of the City and State, and of the local profession, were delivered by the Honorable Theodore F. Davidson and Dr. John H. Williams.

Presidential Address.—Dr. Moyer referred to matters of general interest to the profession. He dwelt at length upon an address which was delivered at the International Medical Congress by the distinguished American colleague—Jacobi, who saw fit to discuss the old code question. The speaker thought it unfortunate that this subject, long since dead, but not buried, should be embalmed in the records of that Congress. As to medical societies, there cannot be too many of them. In no other country are these societies so numerous as in America. They are usually well attended. In foreign countries these societies are for the few; in this country they are for the many, and it is to their collective voice, speaking in no uncertain tones, that the profession owes the uplifting of medical education.

Medical Legislation.—The passage of medical acts has been urged by the medical profession, and physicians have been distinctly misunderstood in their attitude toward such legislation. Legislators feel that in some way the medical profession wishes to put a fence around the practice of medicine that physicians inside may fatten upon it. This is not true. Physicians do not urge the passage of medical practice acts for their personal aggrandizement, but simply to protect the people, to prevent the illegal practice of medicine by unqualified persons and by quacks.

Specialism.—If anything can be said in criticism of the medical profession in this country it is the overweening inclination toward specialism. A physician should spend several years in general practice before adopting a specialty. Specialism has done many good things for medicine, but practitioners should see to it that it is not overdone. If a physician wishes to acquire a broad general culture, it can only come from general practice. The selection of a specialty should, like matrimony, come naturally and without being forced.

Abdominal Versus Vaginal Hysterectomy.—Dr. H. O. Walker of Detroit, Mich., read this paper. He said that the question of the best approach surgically to the uterus and adnexa has not been settled. Cancer of the uterus is not an infrequent cause of death in women. The question of recurrence of cancer of the uterus is very important and is immediately connected with the method of its removal. The manner of recur-

rence of cervical carcinoma is either by extension into the broad ligaments, from the vagina downward and other contiguous parts, as the bladder and rectum, and occasionally to the body of the uterus, or by metastases through the lymph-channels and by distinct direct implantation. The surgeon should be governed by the method of operation which will offer the best advantages in guarding against recurrence of the disease, and in order to illustrate this the author reported two interesting cases, one of which was a vaginal, the other an abdominal, hysterectomy. The report of one case showed what he could not have done by the vaginal method; the other portrayed what he could have done better, more safely and more surely by the abdominal method. All things being equal, the abdominal route offers advantages that do not pertain to the vaginal route. (1) The surgeon is better able to see what he is doing. (2) He is much better able to control hemorrhage by the abdominal than by the vaginal route when he is working in a dark cavity. (3) The danger to the ureters is minimized, and, if injured, the opportunity for repairing them is better. (4) The prevention of sepsis is more certain by the abdominal than by the vaginal route, aided in the first instance by the Trendelenburg posture.

Cancer of Uterus and Treatment.—This paper was contributed by Dr. R. S. Sutton of Pittsburg, Pa. Cancer operations should not be recommended as curative, but as palliative and therefore useful. Total vaginal extirpation of the uterus, at or after the time of the climacteric, should find a place as prophylactic treatment against cancerous disease. The treatment for existing cancer of the uterus has probably reached its complete evolution. With reference to the question of prophylaxis, the average age of patients operated on was forty-three years and a fraction, and it was claimed that, if these patients had all been subjected to total vaginal extirpation at the average age of forty years, all of them would have escaped cancer of the uterus. According to his own statistics, but 4 per cent. of the cases would have died; whereas nearly 100 per cent. of these cases did die within a period of two or three years after operations for cancer. Greater attention should be given by physicians at large to the early repair of lacerations of the cervix and to painstaking observation and consideration of that train of symptoms preceding and leading up to the development of uterine cancer. He unequivocally recommends radical surgical treatment in all such cases, and clearly announces that if the number of cases of uterine cancer and consequent mortality in the future is to be diminished it must be done in forestalling the disease.

Dr. Edward W. Lee of St. Louis, Mo., favors the abdominal operation in a large majority of the cases. He believes it is easier to perform; the operator can see what he is doing; he has a more perfect control of the tissues, and can do a more thorough operation.

Dr. Chauncey D. Palmer of Cincinnati, O., said that until the past few years the vaginal method was preferred to the abdominal. The causative relation between laceration of the cervix uteri and cancer of the uterus is so clearly defined that its importance ought to be recognized by all physicians.

Dr. J. Wesley Bovee of Washington, D. C., mentioned three classes in which vaginal hysterectomy for cancer of the uterus, with the removal of such other structures as may be involved, is advisable. In very feeble patients, who are not able to stand a prolonged operation, he favors the combined method advocated by Ries, Clark, Werder, and others. The combined operation has been done by him in thirteen cases, all of whom are living, with two recurrences.

Dr. A. H. Cordier of Kansas City, Mo., said that in cases in which there is extensive involvement of the cervix by the cancerous process, implicating the bladder and rectum, his patients have been much benefited by thoroughly curetting the cancerous mass, then using the Paquelin cautery, and packing the parts with carbide of calcium. Along with this treatment he uses the old Goodell vaginal injection of permanganate of potash.

Dr. William F. Barclay of Pittsburg, Pa., said that the general practitioner is to be censured to a certain extent for not referring cases with cancer of the uterus early enough to specialists. For years he has made it a rule, when in doubt as to the diagnosis of disease of the uterus and where there was complaint on part of the patient, to refer the case to a specialist, and he has been satisfied with the result. The earlier operations are done for this disease, the greater the prospect of prolonging life.

Post-Operative Internal Hemorrhage.—A paper on this subject was read by Dr. A. H. Cordier of Kansas City, in which he drew the following deductions: (1) In diagnosing post-operative hemorrhage the history of the patient will aid much. (2) Symptoms of shock and hemorrhage are very similar. (3) In suspected cases the cutting of a single stitch in the incision will tell. (4) In cases in which bleeding is anticipated a tube should be used. (5) The surgery must be quick and decisive in these cases. (6) Large quantities of normal saline solution will save many patients. This should be used both per rectum and into the veins. (7) Strychnine, belladonna, etc., will not control bleeding from the uterine or ovarian artery any better than from the radial or temporal. (8) The surgeon should do what his surgical conscience tells him is right.

Intermittent Hydrops of the Knee.—Dr. George W. Cale of Springfield, Mo., reported the case of a woman, forty-five years of age. Her trouble began five years ago. There was no history of injury. There was a rapid accumulation of fluid in the left knee-joint, which, however, was not painful. This would disappear in from one to

four weeks, with or without treatment. The disease would recur at periods varying from one to six months.

Ventral Hernia Following Laparotomy.—This paper was read by Dr. E. Brindley Eads of Chicago, Ill. The occurrence of ventral hernia as a sequence of abdominal section is so common that it should command thoughtful consideration. The author urged the adoption of those methods which personal experience has demonstrated to be of the greatest use, both immediate and remote. As intact innervated muscular fiber is the only safeguard against hernia following laparotomy, the first rule is to make the abdominal incision parallel, or nearly parallel, with the direction of the motor nerves, and of the most important muscular fibers supplied by these nerves. In considering the incision the following points must be taken up: (1) The length is largely dependent upon the thickness of the superficial fascia; it must be sufficient to allow free access to the muscles whose functional integrity is essential to success. (2) The length must be relatively greater than when muscular fibers are to be separated instead of divided. (3) It must vary with the pathological condition. (4) An opening of sufficient size must be secured for thorough exploration and to obtain the requisite degree of precision and rapidity in manipulation. (5) A long incision through the skin and superficial fascia does not predispose to hernia. (6) It lessens the mortality by providing ample space for the protection of surrounding viscera. (7) It lessens shock by diminishing the time required for the operation, and also the duration of the anesthesia. Several incisions were mentioned. The difficulties he has experienced in reaching the appendix through the McBurney incision in acute suppurative cases of appendicitis has caused him to devise another method of approach in a more dependent part. This incision overlies the outer border of the cecum and leads directly to the appendix. It is slightly curved outward and downward, crossing an imaginary line drawn between the anterior superior iliac spines. The center of this curve is from an inch to an inch and a half to the inner side of the right superior iliac spine. The skin and superficial fascia are incised for about two inches. This freely exposes the aponeurosis of the external oblique, which is separated by means of the dry dissector, or the handle of a scalpel, in the direction parallel to its fibers and well retracted. This brings into view the transversely arranged fibers of the internal oblique, and transversalis muscles, and the twelfth abdominal, ilio-hypogastric, and possibly the ilio-inguinal nerve, which are in turn retracted in order to reach the transversalis fascia, which, together with the peritoneum, is divided transversely. The advantages gained by this incision are: (1) It provides easy access to the diseased area. (2) It enables the operator accurately and securely to protect the peritoneal cavity from infection. (3) It lessens liability to breaking down the inner limiting wall of adhe-

sions. (4) It affords a better opportunity to open the abscess cavity from the outer side. (5) It favors drainage. (6) It has not been followed in the author's experience either by appendicular fistula or post-operative hernia.

Gangrene of Scrotum and Penis.—Dr. E. H. Richardson of Atlanta, Ga., narrated the history of a case which showed the initial lesion to have been an abrasion of the skin near the os pubis, with probable infection with the erysipelatous cocci at this point, and later a mixed infection from the streptococcus of gangrene, terminating in the destruction by the gangrenous process of the entire integument of the penis and of three-quarters of the scrotum. A plastic operation was made, with the result that the integument of the penis and testes was preserved. The patient made a perfect recovery.

Tracheloplasty.—Dr. Henry P. Newman of Chicago read this paper. He calls attention to the great importance of the function of the cervix uteri in relation to disease in women. In former times cervical lesions were recognized as a fruitful source of gynecic evils, and many operations and instruments were devised for their correction. Emmet's trachelorrhaphy, once so popular, has ceased to be adaptable to the needs of to-day in repairing cervixes. Dr. Emmet, in conceding this himself and offering amputation as a substitute, states that the great advance in the obstetrical art and the methods of caring for a lacerated cervix in labor have altered the character of surgical pathology. The author finds the indications for plastic work upon the cervix still sufficiently widespread to justify the presentation of a new method of operating. This he calls tracheloplasty or plastic work designed not only to restore normal contour and relation, but to reestablish proper function. The distinctive features of the method are the use of a specially designed knife, the shape of the flaps in the anterior and posterior lips of the cervix, clean, smooth-cut surfaces, accurate approximation of flaps, the certainty of restoring the proper lumen of the canal, and the simplicity of the after-treatment. Neither tracheloplasty, nor any one operation of the kind, should be relied on to correct all the ills which accrue from lacerations in childbed. It is frequently necessary to do such simple work as shortening the round ligaments or suspending the uterus, when there is a displacement of the uterus; divulsion and curetting when disease has extended to the endometrium above; repair of the pelvic floor when, through relaxation or trauma, there is a hernial condition of the rectum, bladder, vagina, or superimposed viscera; sometimes even the opening of the abdomen for plastic work, or resection of pathological conditions of the ovaries, tubes, etc. Any one or two of these accessory operations may be necessary to restore the patient, although the disease or deformed cervix may have been the essential, perhaps the sole, etiological factor in the case.

Middle-Ear Disease and the Cranial Cavity.—Dr. O. J. Steini of Chicago read this paper and

pointed out the necessity of recognizing the importance of possible intracranial complications in every case of middle-ear disease. The various avenues of infection were dwelt upon at length, these being illustrated by beautiful drawings and specimens. The symptomatology of intracranial phlebitis, thrombosis and abscess was discussed, and several instructive cases reported. In connection with this paper Dr. J. Holinger of Chicago gave an interesting stereopticon demonstration.

Address in Medicine.—This was delivered by Dr. I. N. Love of New York. He selected for his subject "Nutrition and Stimulation." Continuance of life, beginning with the original protoplasm, the cell, depends upon proper nourishment. The proper nutrition of the new being, from the very beginning, prior to birth, should be carefully considered. The entire scheme of tissue-building, of repair, of maintenance of the mechanism of the human body involves not only nutrition, but perfect elimination, and the two together are expressed in the term metabolism. Interrupted metabolism tends toward organic disease and, finally, death. Perfect metabolism means perfect health. Stimulants are of value, if used in the right way and at the right time. In the healthful condition they are not needed. Coffee and tea are essentially domestic pleasures, and, while seemingly harmless, they are potent whippers-up of energy and should be used with great care.

The Treatment of Perirectal Abscesses.—Dr. John L. Jelks of Memphis, Tenn., said that rectal abscesses, when properly treated, are not as serious as when it was the practice to use poultices and await pointing. These abscesses need not result in fistulae, unless they are the result of malignant diseases, as tuberculosis, cancer and syphilis. Simple incision and drainage of these abscesses do not get rid of their walls, hence this barrier to infection remains as an irritant and causes suppuration. In many cases the abscess-wall becomes calloused, and all efforts to establish granulation are futile. When one is able to elicit fluctuation, free opening and irrigation may result in cure. With a sharp, irrigating curette all of the abscess-wall should be removed and the cavity thereby converted into a surgical wound. Formalin solution is best for irrigating these cavities and they should be packed with iodoform gauze. After thus treating these cases no further suppuration need be expected. Superficial abscesses should be dealt with in the same manner; or they may be frozen and excised as the surgeon would a tumor. They are, when otherwise treated, liable to infect deeper structures. Local anesthesia will suffice, for curettage can be properly practised with it.

Enucleation for Hemorrhoids.—Dr. J. Rawson Pennington of Chicago contributed this paper, which was profusely illustrated. He gives a cathartic two nights before the operation, a saline the following morning and a bath, and colonic flushing the night before. The next

morning he gives an enema of from one-half to one pint of cool water, and operates two hours later. He emphasizes the importance of carefully examining the entire rectum. He grasps each anal quadrant at the muco-cutaneous junction with a pair of forceps; the anus is everted and the internal tumors exposed. Seizing the forceps attached to the posterior quadrant, he fully everts it, and with a pair of scissors curved on the flat cuts off the redundant membrane only, which is usually about one-third or one-half of the uppermost part of the hemorrhoidal node. This permits the blood in the tumor to escape. All of the angiomatous tissue is carefully removed, when the remaining wall collapses. Each quadrant in regular order is treated in a like manner. A stream of hot sterilized water flows continuously over the field during the operation. Spurring vessels, if any, are caught with forceps and thoroughly twisted. Should this fail to control hemorrhage, he ligates the vessel. After the operation he introduces a rubber-covered tampon. The advantages of this method are: There are no stumps to slough; no nerves are caught and squeezed; nor are the nerves and tissues burned to a crisp, as when the clamp and cautery are employed; the formation of stricture is obviated. The patient is given a cathartic, and the tampon painlessly removed at the end of forty-eight hours. There is no pain nor bleeding with the movement of the bowels. After the bowels have moved, the patient is instructed to keep the stools soft for two or three weeks by taking compound licorice powder or Apenta water, the latter being very palatable and effective. He has performed this operation in fifty cases, with more satisfactory results than he has obtained by any other method.

Obstipation.—Dr. Sterling B. Taylor of Columbus, O., read this paper. Obstipation was defined, and a comparison of obstipation, constipation and costiveness made. The causes of obstipation were dwelt upon and classified. Hypertrophy of the rectal valve was emphasized as the usual cause of obstipation. The essayist defended the views of Martin and his method. The symptomatology of the affection, palliative and radical treatment were discussed, the author closing his paper with the citation of several cases.

Tuberculosis of the Spine.—Dr. Alexander C. Wiener of Chicago contributed a paper on this subject. He made a plea for early diagnosis before deformity is noticeable. Extension and hygienic treatment are essential in avoiding complications, such as paresis and gravitation abscess. He exhibited a specimen which illustrated the possibilities of forcible correction of the spine. He narrated cases of psoas abscess in which he had effected a cure with injections of concentrated carbolic acid.

Treatment of Cervical Lymph-Nodes.—Horace H. Grant of Louisville read this paper. The purpose and function of the lymphatic glands were dwelt upon. The author showed how they may be rendered useless and harmful by disease

and disintegration. He pointed out the limitations of medical and expectant treatment, and outlined the indications for the various surgical procedures.

Fulminating Appendicitis.—This was the subject of the Address in Surgery delivered by Dr. Charles A. Wheaton of St. Paul, Minn. He said that every case of appendicitis is and by rights should be considered surgical, because the surgeon's training specially qualifies him to best interpret the meaning of the symptoms encountered. Every case of so-called fulminating appendicitis should be operated on as soon as its distinctive characteristics are known. High temperature and accelerated pulse, associated with local pain and rigidity, are strong presumptive evidences of malignancy in the attack, and if associated with vasomotor disturbances are practically proof positive of perforation. The surgeon who refuses the only chance that drainage may give even the most desperate cases is false to himself and fails materially in discharging his obligations to his patient, obligations which the patient has a right to expect at his hands. A puncture in the median line, in the loins, or in a woman in the posterior cul-de-sac, under local anesthesia, does not add to the danger of the condition, and it materially aids nature in the awful up-hill fight. In short, in every fulminating case, operate first, and philosophize afterward.

Subarachnoidan Injections of Cocaine.—Dr. Carl H. Andersen of Chicago spoke on the use of such injections in operating below the diaphragm. He referred to the work of Tuffier, Bier, and others in this comparatively new field, saying that sufficient credit had not been given to Leonard Corning as the originator and adviser of this method of anesthesia. He described its technic, which is substantially that outlined by Tuffier, and reported six cases in which he had resorted to the method. (1) Hydrocele, with vague history. Patient, colored, twenty-eight years of age, strong and healthy. Subarachnoidan injection of 15 minims of a two-per-cent. solution of cocaine. Anesthesia complete. On opening the scrotum sarcoma of the testicle was found and removed. Ninth day after operation patient died from pulmonary embolism. (2) Varicose veins of the leg. Injection of 8 minims of a two-per-cent. solution of cocaine. Anesthesia lasted five hours and ten minutes. No pain during operation. Perfect recovery. (3) Trachelorrhaphy. Cocaine anesthesia. As soon as operation was finished the patient fainted and remained in that condition for two hours. Under strychnine and salt water per rectum, she rallied and recovered. (4) Amputation of toe in a man, seventy-two years of age. Seven minims of a two-per-cent. solution of cocaine injected. Uninterrupted recovery. (5) Operation for suppurative appendicitis. Patient, woman. Operation performed at 10 A. M.; at 2 P. M. patient showed symptoms of medullary irritation, pain in the back, and severe headache. The patient had a

terrific headache for several days after the operation. (6) Version and use of forceps. At the suggestion of Dr. Harold N. Moyer, Dr. Andersen injected 16 minims of a four-per-cent. solution of eucaine B in this case, with very satisfactory results. Patient suffered no pain whatever. Eucaine B can be perfectly sterilized by boiling. Dr. Andersen spoke of the difficulties attending the sterilization of cocaine, and outlined a method by which this can be accomplished. He regards lumbar puncture as a serious operation, and urged practitioners to be exceedingly cautious in employing it. These cases were reported for the express purpose of warning the profession that the method is far from harmless, and if it is employed indiscriminately it will lead to disastrous consequences.

In the discussion, Dr. Harold N. Moyer said that if asked in regard to the use of this method of anesthesia, he would say, do not use it. No surgeon should undertake it unless he has a well-equipped laboratory. The method is at best in its experimental stage, and further research and experiments should be carried on in well-equipped clinics until the possible dangers of this method are better and more clearly understood. Among the dangers are the toxic properties of the cocaine. A four-per-cent. solution of eucaine B can be used with absolute safety. It is about one-third as toxic as cocaine, and one-half as anesthetic as cocaine, but it can be absolutely sterilized. The danger of infection from such injections is considerable and should not be overlooked. As to the remote dangers from this form of anesthesia, cases have not been observed sufficiently long to enable surgeons to say whether or not there are such dangers.

Tuberculous and Purulent Hip-Joint Disease.—Dr. A. M. Phelps of New York said that all abscesses, tuberculous or purulent, should be opened as soon as the diagnosis is made for the purpose of exploration; secondarily, for drainage and for any surgical procedure which may be deemed advisable. Excisions should be performed when the acetabulum is extensively diseased, the diseased tissues removed, and the joint thoroughly washed out with pure carbolic acid, then with pure alcohol, and finally with a two-per-cent. solution of carbolic acid, and as large a drainage-tube of glass as the wound will take should be inserted. Through this large drainage-tube the packing for drainage purposes can be made. The large glass speculum enables the operator to watch every pathological change which takes place. It keeps the soft parts widely separated and prevents their union until after the bone has granulated up and healed. It enables the operator to dress his patient without doing violence to the granulating surfaces of the wound and inflicting unnecessary pain. All rubber drainage-tubes should be entirely discarded, as they are filthy, collapsible, and are a source of infection. The carbolic acid is absolutely neutralized by the action of the alcohol. Local carbolic poisoning, and even when the drug is taken

internally, is neutralized by the action of the alcohol.

Pulmonary Tuberculosis in Infancy and Childhood.—By Dr. Frank P. Norbury of Jacksonville, Ill. This disease is not rare in children. Heredity is of etiological importance, but it has lost its prestige and it has been shown that infection is the main etiological factor. The mode and route of infection are important considerations. Northrup, Carr, and others have shown that tuberculosis starts most frequently in the thorax. Pulmonary affections, such as whooping-cough, influenza, etc., create favorable conditions for infection. Enterocolitis and gastroenteritis create portals for intestinal infection. Milk is a source of infection. Tuberculous meat, too, is a source of infection. Differential diagnosis from bronchopneumonia can only be made by laboratory methods. Acute miliary tuberculosis and bronchopneumonic tuberculosis are most frequently found in infants and children. The complications are meningitis, empyema, and involvement of bones. The prognosis is grave in almost all cases, but lesions of lungs may heal under favorable conditions. With reference to treatment, prophylaxis during infancy should include attention from birth, if mother is tuberculous; also good hygienic, open-air treatment; climatic change, when possible. The symptomatic care should be the same for children as for adults. Good nutrition should be maintained and as little medicine as possible given. Creosote and simple tonics are recommended.

The Physician as a Sanitarian.—Dr. Hugh A. Cowing, of Muncie, Ind., discussed preventive medicine; hygiene of infection; the physician as a factor in the spread of infection; the physician and the health officer; health legislation, and the physician and the public schools.

Philosophy of the Science and Art of Medicine.—By Dr. William F. Barclay of Pittsburg, Pa. True and false philosophy should be appropriately applied to results obtained in rational conclusions. The philosophy of medicine is the comprehension of the truth in the investigation of the science, enabling one to arrive at rational conclusions in the study of physical laws which govern organized matter in normal and pathological condition.

Asthma.—Dr. B. Alexander Bate of Louisville said that modern opinion seems to regard asthma as a neurosis of the pulmonary plexus due to arthritism. In bronchial asthma uric acid in the blood so alters nutrition as to cause a neurosis, thus inducing hyperesthesia and engorgement of the bronchial mucosa, spasmodic contraction of the muscular fibers, and the various manifestations of metabolism. Asthma frequently alternates with such diseases of the arthritic diathesis as neuralgia, migraine, angina, and gout. Clearing the blood of uric acid has relieved asthma only to be followed by gout, as the uric acid was precipitated into the tissues. Asthma may be said to belong to the class of uric acid diseases due to the effect of high arterial tension in con-

tradistinction to those produced by precipitation of urates into the tissues. The attacks come on most frequently when the blood is loaded with uric acid during the alkaline tides. The causes of asthma were divided into two classes: First, the systemic or essential cause—the arthritic diathesis. Second, the local or exciting cause of the attack. The first of these is perhaps present in every case. Modern methods of treatment have been able to cut short the attacks in most instances and often to prevent their return. After the removal of the exciting cause the treatment consists in the use of such remedies as overcome arterial tension by freeing the blood of uric acid. The treatment of the interval consists in the use of such drugs as eliminate uric acid from the system, and the adherence to such a diet as permanently keeps down arterial tension.

Inebriety and Medical Treatment.—Dr. T. D. Crothers of Hartford, Conn., said that inebriety is a self-limited and largely curable neurosis. The desire for drink is symptomatic. The real causes are central nerve-irritation, exhaustion, poisoning, and starvation. Each case requires special means and measures, particularly adapted to meet the conditions present. The family physician as well as the specialist should treat these cases successfully.

Clinical Application of Suprarenal Capsule.—Dr. W. H. Bates of New York regards the aqueous extract of the suprarenal capsule as the most powerful stringent, hemostatic, and heart tonic known. It lessens congestion of the eye and of other organs. The extract is not irritating or poisonous, and, unlike other powerful drugs, is never contraindicated.

Purgative Mineral Waters.—Dr. Edwin Rosenthal of Philadelphia discussed this subject. He spoke of natural and artificial mineral waters; simple, thermal, common salt, or muriated waters. He dwelt upon the waters mostly met with in commerce, spoke of their chemistry, names, mode of action, uses, method of selection of a special purgative water, etc.

The Law and the Surgeon.—Dr. Dudley S. Reynolds of Louisville, Ky., said that a surgeon must possess a reasonable familiarity with the science of his profession; he must exercise reasonable skill for the locality in which he practices, and must devote due diligence and care in attending to his patient. If the patient declines to submit to treatment, the surgeon does not abandon the case at once, he assumes liability for the result of failure to do that which in his judgment was best for the relief of the patient.

Differential Leucocytosis.—Dr. L. H. Warner of Brooklyn, N. Y., read this paper. Experiments in recent times have given us a better insight into leucocytosis. It has been demonstrated to be due to three causes—digestion, inflammation, and infection. Physiological and biological experiments have proven that by means of medication a true picture of leucocytosis may be produced, but which in reality represents leucocytodiarthesis, a condition very desirable in the

treatment of disease and a recognition of which is of the greatest value when hematology is called upon to aid in arriving at a correct diagnosis.

Election of Officers.—The following officers were elected for the ensuing year: President, Dr. A. H. Cordier of Kansas City, Missouri; First Vice-President, Dr. Charles F. McGahan of Aiken, South Carolina; Second Vice-President, Dr. Charles L. Minor of Asheville, North Carolina; Secretary, Dr. Henry E. Tuley of Louisville, Kentucky, re-elected; Treasurer, Dr. Dudley S. Reynolds of Louisville, Kentucky, re-elected. Put-in-Bay, Ohio, was selected as the next place for holding the meeting; time, September 10, 11, and 12, 1901. Dr. J. C. Culbertson of Cincinnati, Ohio, was selected as the Chairman of the Committee of Arrangements. The meeting ended with a banquet at the Battery Park Hotel given by the Buncombe County Medical Society.

NEW YORK ACADEMY OF MEDICINE, SECTION ON MEDICINE.

Stated Meeting, Held Tuesday, October 23, 1900.

John H. Huddleston, M.D., Chairman.

THE paper of the evening, read by Dr. Alfred Meyer, was entitled "The City and Its Consumptive Poor; A Plea for a Municipal Sanatorium Outside of the Corporate Limits." (See p. 639.)

Financial Difficulty.—The discussion of the paper was opened by Dr. John B. Cosby, Commissioner of Health of New York City. He said that the need for an institution for incipient cases of tuberculosis such as Dr. Meyer suggested in his paper is very evident. The practical difficulty in the way is the provision of the sum of money necessary for the purpose. The \$350,000 proposed by a bill passed in the last Assembly is far beyond anything that city financiers at present think themselves in a position to allow. There remains this question with regard to any appropriation made: Shall it be used by the Board of Health in the furtherance of work now in hand—the purifying of the tenement district from tuberculosis and the like—or shall it be employed to found a special hospital for incipient cases? If an amount sufficient for a hospital cannot be obtained, at least an increase of the present means of fighting tuberculosis should be allowed.

The Present and Immediate Future.—John W. Keller, Commissioner of Charities, sent a note of regret for his absence and some remarks on the subject, which were read by the secretary. He said that at present there is not sufficient room in the charitable institutions of the city to provide places for all the cases of advanced tuberculosis that apply for care and treatment. Within the next year, however, the provision of accommodation for the City's insane in the Manhattan public hospital will leave to the Board of

Charities the whole of Blackwell's Island now given up to the insane. Three buildings will be vacated there, in healthy locations on the East River and separated from one another. These will provide very suitable quarters for a great many additional tuberculous patients. This will obviate the necessity for special provision by act of legislature in the immediate future. The death-rate from tuberculosis in the public institutions of New York during the last year has not been encouraging. A mortality of over 33 1/3 per cent. shows the need for more suitable quarters and care. This mortality will undoubtedly be distinctly lessened when Blackwell's Island will be available for the City's consumptive poor. Personally, Commissioner Keller is heartily in accord with the movement to provide for incipient cases of tuberculosis, but he feels that advanced cases which are so liable to be fruitful sources of contagion need our most solicitous care at once.

Care of Consumptives.—Dr. Hermann M. Biggs said that seven years ago he drew up for the city authorities a scheme for the proper management of consumptive cases. He pointed out that three things are necessary: (1) A receiving pavilion at Bellevue Hospital where the cases could be properly diagnosed and where the tuberculous patients would not be a source of danger to others. (2) The setting apart of special wards for advanced cases. (3) The establishment of a cottage sanatorium for incipient cases. It was suggested that the neighborhood of Central Islip, Long Island, where the City owns some land, would be a suitable place for this cottage sanatorium. The scheme was approved by the Commissioners of Charities, especially by President Porter, but there were no funds available for its accomplishment. Under Mayor Strong the reception pavilion at Bellevue was begun and this is now ready for occupancy.

Number of Consumptives.—Dr. Meyer has said that there are 30,000 cases of tuberculosis in the city. This is an extremely conservative estimate. There are certainly many more than this. The number of incipient cases is set down as 8000. Dr. Biggs is of the opinion that there are at least 15,000 incipient tuberculosis cases in New York, one-half of whom recover and so, perhaps, form no part of the statistics. In 1897 the notification of tuberculosis was made compulsory. Since then the death-rate from tuberculosis has dropped very markedly. While the death-rate in 1889 was 4.4 per 1000, in New York City, last year it was only a little over 2.8. It seems advisable that the money provided by appropriation for the improvement of present conditions with regard to tuberculosis should be spent rather in preventive medicine than in the care of a few favored ones in a sanatorium.

Dr. John P. Faure, ex-Commissioner of Charities, said that the present movement was in line with other great philanthropic purposes now being accomplished here in New York. Floating hospitals have done much to reduce the death-

rate among infants in the city. If the mortality from tuberculosis can be reduced the present generation will accomplish something worthy of itself.

Mr. Frederick Sturgis, Vice-President of the Presbyterian Hospital, said that general hospitals cannot provide places for tuberculous patients. They have no room for them and, moreover, the tuberculous would constitute too great a source of danger for other patients. There is absolute need, therefore, for a special hospital for these patients.

Sanatorium Success.—Mr. Jacob H. Schiff, President of the Montefiore Home, said that the Home had tried the experiment of the sanatorium treatment on a small scale at Bedford Station, Westchester County. This proved so successful that they have tripled the size of the sanatorium and now all tuberculous patients are to be sent there. They are, however, unable to cope with the large problem of tuberculosis and think the State and City should take up the question.

Mr. Savage, of Roosevelt Hospital, said that dispensary cases of tuberculosis, i. e., those living in tenement-houses, are a constant source of menace to those living near them. It is a duty to remove these people just as much as if they had scarlet fever or smallpox.

In closing the discussion Dr. Meyer said the present health authorities of New York all favor the sanatorium idea. Even with the additional beds in Blackwell's Island the City will be far from being able to cope with the problem of tuberculosis in our midst. We do not want drastic measures of compulsory segregation, but it is plainly the duty of the City to give its tuberculous citizens the best possible chance for saving their lives and at the same time to protect its healthy citizens from danger of infection.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, Held Thursday, October 4, 1900.

The President, Wm. H. Thomson, M. D., in the Chair.

Infant Feeding.—Dr. Abraham Jacobi of New York read the report on the artificial feeding of infants which he prepared by request for the International Congress of Medicine at Paris this year. Only an abstract of this report was presented to the Section on Children's Diseases at Paris, and now, by special invitation, Dr. Jacobi read the complete paper. He said that in recent years a great deal of literature had accumulated on the subject of the preparation of food for the infant. Most of this consisted of dictatorial precepts founded on supposedly scientific laboratory investigations rather than on the results of clinical experience. Most of the writers on the subject seem to have overlooked the fact that chemistry is not physiology and that the infant stomach is not a test-tube. Besides this, in Dr.

Jacobi's characteristic way, he said that much of the recent literature on the artificial feeding of infants exhibited the carping spirit so distinctive of ambitious mediocrity. The science of man, and of his diseases does not find the solution of its problems in chemical or mathematical formulæ. Certain phases of the recent literature, however, are of great interest and at least suggestive if not of practical value.

Composition of Mother's Milk.—Mother's milk is not the definite compound that some have been accustomed to consider it. The child may thrive on one woman's milk and fail completely to do so on another's. Some standard for the preparation of an artificial food that will more or less resemble mother's milk is needed. A standard is obtained by taking the average of a series of analyses of human milk. The analyses of different examiners have proven, however, rather contradictory. This is not so much to be wondered at, however, if we bear in mind that not only the milk of different women differs, but the milk from the same woman may differ according to her physical condition, according to the amount and character of the food she is taking and even according to her emotional state during a given period. Variations in milk as the consequence of menstruation and of excessive lactation are well known. It has been said that there is more albumin in human than in cow's milk. Whether all of the albumin in woman's milk occurs in the form of casein is not known. Pfeiffer insists that all the nitrogenous substance of milk exists in the casein. This matter is still in doubt. The usual assertions, therefore, with regard to the comparative casein content of human and cow's milk are not absolute. It is known that there is more phosphorus and less sulphur in woman's milk than in cow's milk, also that the inorganic acids and salts of woman's milk are not precipitated as easily from their solution as in cow's milk. It is known that lab ferment produces larger curds when allowed to act upon cow's milk than upon human milk. All of these are important differences between the two substances with regard to their nutritive value.

Phosphorus in Milk.—Nearly all the phosphorus in woman's milk exists in the form of readily absorbable organic compounds. In cow's milk the phosphorus exists in the shape of an organic compound difficult of absorption. This constitutes without doubt one of the great reasons for the frequent development of rickets in bottle-fed babies. Something of the same thing can be said for the iron which exists in milk. There is less sodium in cow's milk and for this reason it is advisable to add sodium chloride to any artificial food whose basis is cow's milk. The necessity for the addition of sodium chloride is emphasized if cereals are added to cow's milk in the preparation of baby food. Zweifel, in the chapter of his new book which treats of rickets and its causes, says that the women of the lower classes in Saxony are accustomed to eat bread that, according to the habit of the country, is

made without salt. This has, undoubtedly, according to him, an influence in the causation of the large amount of rickets which is seen in that country. Fortunately for the infant, Nature has permitted considerable latitude as regards the food which may be necessary for a child's nutrition. It is to this fact rather than to any definite knowledge, with regard to the ideal baby food, that is to be attributed the modicum of success the medical profession has had in artificially feeding infants.

Advance in Artificial Feeding.—Just one good step forward in the matter of artificial feeding has been definitely made as the result of these dozens of years of work. This is the heating of the milk—some method of sterilization, Pasteurization or Tyndallization being used. Undoubtedly dirty dairies have been and are still the source of a great deal of disease. Scarlet fever and diphtheria are probably spread more by milk than by any other known means. After water milk is the most serious distributing agent of typhoid fever. The germs get on the hands of those who furnish milk for the market. The bacilli also get into the water in which the vessels are washed. It has come to be realized of recent years that tuberculosis is also occasionally spread by milk. The most serious consideration in the matter is the wonderful rapidity with which microbes grow in milk. A few bacilli find their way into the milk and in twenty-four hours there are millions of them. Only sterilization can protect against these bacterial dangers. Short sterilization is not sufficient and some form of heating is advisable even in winter and in country places where the milk is reasonably fresh. A germ-free milk cannot be obtained. According to the bacteriologists all that is required is that milk shall not contain more than 10,000 germs per cubic centimeter and that none of these shall be pathogenic. It was found in Berlin that some pathogenic bacteria occurred in eighty per cent. of samples of milk obtained in the ordinary course of commerce. Heat to at least 100° C. is necessary to protect against these bacterial dangers, even when the bacteria are not specifically pathogenic. Degeneration of the liver, pancreas and kidney take place as the result of the presence of even non-pathogenic micro-organisms in the intestines. Intestinal irritation produces its effect on the general system, even when the microbes themselves do not find their way beyond the intestinal wall.

Difficulties of Sterilization.—If bacteria contain fat, as does, for instance, the tubercle bacillus, they possess greater resistive vitality than other micro-organisms and require at least 100° C. When microbes occur in fat the same rule holds and the microbes of butter and of rich milk require specially high temperatures for their destruction.

The presence of one-fifth of one per cent. of lactic acid prevents the sterilizing effect of Pasteurization. The presence of lactic acid, however, inhibits the growth of micro-organisms, so

that while it is a disadvantage it is also an advantage. Unfortunately it seems true that when sterilization is conducted at high temperatures a change takes place in the albumin of the milk. At temperatures that fail to destroy the spores of bacilli and that do not affect their toxins milk albumin becomes so changed as to be rendered very difficult of digestion.

Tyndallization.—The only means thus far found to overcome these difficulties in the sterilization of milk is the method invented by Tyndall. This consists of discontinuous sterilization. That is; the liquid to be sterilized is heated several times to a temperature high enough to kill ordinary micro-organisms. In the interval between two sterilizations, microbes that during the first heating were in the resistive spore stage germinate and take up the ordinary bacillary form. These are destroyed by the next heating, and the few spores left in the same way by the third heating. It is now over forty years since Dr. Jacobi first directed that milk for infant's food should be heated several times before use. It is the immortal merit of Soxhlet that he systematized this method of sterilizing milk. It is better that milk should be sterilized by a private family for its own use than that it should be secured from a laboratory which sterilizes it wholesale for commerce. The hay bacillus and Pflüger's bacillus are often found in milk and are especially resistive to heat. Their presence, while not especially dangerous, is undesirable because of certain changes that are induced from the milk. It must be remembered that the membrane formed over milk during the boiling process helps to keep tubercle bacilli alive. Hence the milk should be stirred during the boiling or the scum should be removed as it forms and the boiling continued for some time afterward.

Scurvy.—The idea has gained ground that the sterilization of milk produces changes in it which make it indigestible and so lead to the development of that disease of malnutrition which has become somewhat common of late, namely, scurvy. The American Pediatric Association collected 379 cases of this disease. One hundred and seven of these children had been fed on sterilized milk, while the remainder had been fed in various other ways, a few of them even on mother's milk. It is evident then that sterilized milk is not especially the cause of the disease. Marfan denies all connection between the scorbutic tendency and the use of sterilized milk. He claims that scurvy is always due to overfeeding. Overfeeding, however, has been a failing of mothers from time immemorial, yet in recent years scurvy has become much more common than it was. Dr. Jacobi sees many more cases of it now than he did in the first years of his practice. He is convinced that the increased number is not due to better diagnostic acumen of late years, nor to the fact that the disease is looked for with more care.

Long Duration of Sterilization.—It is probable that whatever influence in the production of

scurvy is due to sterilized milk comes from the heat changes produced in the albumin. The proteid material thus becomes inassimilable and the child's nutrition suffers. It has been the custom to think that if heating for twenty minutes did good, heating for an hour would assuredly be of benefit. Some have even recommended the continuation of Pasteurization for from forty to sixty minutes. This is inadvisable and it is from this overcooking that the milk becomes unsuitable to the infant digestion.

Milk Modifications.—Rotch's work in the modification of milk has been most helpful and suggestive. He requires that the cow's milk which forms the basis of the infant's food should come from large dairies rather than be the milk of one cow. Most infections come from small dairies. The milk should be obtained with the most careful precautions as to cleanliness, should be immediately put on ice and kept thus until ready for use. In order to adjust the proportions of cow's milk, he suggests the separation of the cream from the milk by a centrifugal machine. He then mixes cream and milk in what are considered to be suitable proportions for the given case, diluting where necessary the water or lime-water. Of late he has used barley-water as a diluent. Each infant requires an especially prepared prescription and Rotch has stated that as many as 500 different modifications may be needed for different infants. It is evident that this is a very complex method. It is probable that most infants will thrive on this modified food, but many despite precautions will suffer from mild rachitis and craniotabes. This is because the phosphorus and certain ingredients of animal food are lacking.

Laboratory Preparation.—It is doubtful if the laboratory preparation of milk for infant feeding will ever be a success. This method encourages routine which is just the thing that is not wanted in infant feeding. There are those, moreover, who have seen flies and cockroaches in laboratory bottles. While these insects had doubtless been sterilized in the preparation process in the laboratory, they are not desirable ingredients of baby food. Laboratory food is besides very expensive. It is not for the poor at all. From three to four dollars a week, or more, is beyond the means of the ordinary family for baby food. It is probable that the separation of milk by mechanical methods that involve over 6000 revolutions a minute, disturb the constitution of the milk. The cream separates and may not again unite. Mice have been fed exclusively on milk and lived, but when the milk was run through a separator and the ingredients mixed again they did not thrive. The reunited ingredients of the milk do not form milk in the true sense of the word.

Milk Sugar.—It is not entirely certain that the milk sugar which occurs in woman's milk is the same as that in cow's milk. Certainly the milk sugar which occurs in commerce is notably impure. It is probable that for feeding purposes, cane sugar is at least as good. It has been shown that

cane sugar is changed by microbic action into lactic acid. As this is one of the modifications of milk sugar, which is supposed to be of special benefit to the infant because of its inhibitory effect on bacterial growth, one feature of the necessity for milk sugar disappears. In any ordinary cow's milk it is probable that there is enough milk sugar for the infant's nutrition. It is far easier to give too much than too little sugar. It is better to give small amounts of cane sugar than larger amounts of dubious milk sugar. Some milk sugar is absorbed as galactose and glucose, so that the direct use of glucose is not irrational. Marfan gives cane sugar because it is so difficult to obtain pure milk sugar in commerce. Cane sugar should be increased in the infant's dietary whenever the child suffers from constipation. The material makes a simple laxative and does away with the necessity for undesirable drugs.

Fats.—Fats are added by some to cow's milk partly for their influence on the nutrition of the infant and partly because they are supposed to assist the digestion of casein. It is probable that the fat of cow's milk should be reduced rather than increased. In nurslings a great deal of fat is eliminated unchanged. If the amount eliminated becomes excessive, intestinal irritation is set up and a fatty diarrhea is liable to ensue, which still further reduces the amount of fat absorbed by the infant. The fat of asses' milk is low in amount, yet as is well known this agrees very well with children—in fact, better than any other animal milk.

Plain Milk as Food.—In France plain cow's milk is very generally in favor for the feeding of children. In warm weather there is need of diluting the milk and of diminishing the total food taken. There are excellent reasons for high dilution. Babies need much more water as a rule than they are given. It should be given them in their food. It has been objected to this dilution that large quantities of liquids given dilate the stomach. This observation is not the result of clinical experience, but was evidently made at the desk. As soon as the quantity of liquid becomes slightly excessive the child's vertical stomach passes it on and the intestine absorbs it rapidly. Dr. Jacobi has never seen a case of dilatation of the stomach from the consumption of too much liquid, although he is accustomed to give liquids very freely. The lack of sufficient liquid in the system leads to the formation of uric acid infarcts and these predispose to nephritic calculus. Flushing out of the system also avoids irritation of the kidney. Milk if well diluted does not curdle in the thick, indigestible masses that pure milk does. When so diluted it leaves the stomach cleaner, and is liable to give the infant less trouble, for in the infant intestinal indigestion is very important. When infants are given plenty of water there is less loss of weight.

Cereals in Milk.—Of late years the prejudice against the use of cereals in infant's food has gradually been overcome. The dilution of milk

with some cereal water, as barley water, makes it much more digestible. It has been said that infants are unable to digest starch, but this has been proved untrue. Heubner found in the infant of two hours, of sixteen days, and of two months, that diastase was present in the parotid. There was none in the pancreas, and pancreatic digestion does not begin until the infant is nearly a year old. The old literature which condemned the giving of starch so vehemently referred to the excessive use, or the exclusive use, of starchy foods. The feces of an infant fed on milk diluted with barley-water contain no fat and very little starch.

Phosphorus in Milk.—In the discussion Dr. Koplik said that the nuclein of cow's milk contains phosphorus, but in a form in which it is frequently not absorbed by the infant. In this respect cow's milk is very different to mother's milk and hence rachitis develops so frequently in bottle-fed babies. Cow's milk must be used, but some simple modification will usually be sufficient and scientific accuracy in the matter cannot be expected. If the infant does not thrive slight changes must be made in the formulae of modification. Moderately clean and fresh milk can now be obtained and, if on simple dilutions the infant does not thrive, cereals should be added. It is unfortunate that scurvy has been attributed to sterilized milk. Scurvy occurs in any food and is probably due to some pathological process that is interfering with digestion and producing toxemia. There are half a million of sterilized-milk-fed babies and less than 400 cases of scurvy. Scurvy is a curable disease, while affections that come from unsterilized milk are often incurable.

Dr. Chapin said that what we need is clean, fresh milk rather than Pasteurized milk. This can be obtained if the medical profession will give its attention to the subject and educate the dairymen and the public up to the idea of what constitutes good milk. The addition of cereals to milk often assists its digestion and, if the amyloseous material be dextrinized, there can be no objection to it.

Dr. Carr said that if the milk is fresh and clean, very little heat is needed in its preparation as food for the infant. One must adjust the food to the particular case. At times mother's milk disagrees with the child or leads to rickets, and then even this natural food needs modification.

NEW YORK ACADEMY OF MEDICINE.— SECTION ON SURGERY.

Stated Meeting, Held Monday, October 8, 1900.

Charles N. Dowd, M.D., Chairman.

Strangulation by Meckel's Diverticulum.—Dr. J. F. Erdmann presented two cases of this lesion which have occurred in his private practice in the last few months. About six months ago he

presented a third case of this condition. All three of the cases were successfully operated on. The symptoms in all the patients were strikingly similar to those of appendicitis. When the incision was made there was never full assurance that there might not be found some pathological conditions in the appendiceal region. The treatment of the condition was similar to the excision of the appendix. When the diverticulum was of small diameter it was inverted into the gut. When the diverticulum was of large size it was sewed up precisely as would have been done with a bit of intestine. No untoward event has occurred since operation in any of the cases.

Acute Appendicitis.—Dr. Alexander B. Johnson reported forty cases of appendicitis operated upon during the last few months. Among them were eight cases of generalized purulent peritonitis, three of which proved fatal. In six of the cases no appendix was found. The features that seem to be most conducive to successful operations for appendicitis in Dr. Johnson's opinion are the abundant use of salt solution, the employment of a small incision and the exercise of extreme care in exposing the intestines to the outer air. There must positively be no evisceration, if the patient is to be given the best chances for recovery.

Where the general peritoneal cavity has become infected the use of an abundance of hot sterile salt solution at a temperature of 116° to 118° F. seems to be the best therapeutic measure. The salt solution should be introduced in a good-sized stream from a reservoir at least four feet above the patient's head. The flushing out of the peritoneum should be continued until the salt solution returns perfectly clear. The intestines should not be allowed to project out of the abdominal cavity at any time and fibrinous plaques of lymph on the intestines should not be removed.

Danger of Evisceration.—Dr. Johnson considers that the immediate effect of allowing the intestines to project out of the abdominal cavity for any length of time is a practically complete paresis, which very seriously affects all the intestinal functions. This is not due to the septic material in the abdominal cavity, but to the reflex action of the chilling on the delicate nervous mechanism of the intestinal circulation. After trauma with intestinal exposure, even before sepsis has begun its work, it is no unusual thing to see such a paralysis supervene.

Points of Technic.—Where a frankly purulent condition exists, no special effort should be made to avoid opening the peritoneum. Where there is an abscess, however, the intestines should be protected as far as possible from contact with the pus by means of warm pads. As a rule all adhesions should be broken up in order to get at the appendix except where the bands are very dense.

Unusual Complications.—The first case, a boy of sixteen, operated on for purulent appendicitis, had a perfectly normal recovery until the tenth

day, when his temperature went up and his pulse showed signs of some infective process at work. On the fourteenth day a large abscess was found to exist between the liver and the diaphragm. This was evacuated and recovery took place. In a second case a man of thirty had had several severe attacks of appendicitis during the last ten years. A moderate-sized appendix was found opening into an abscess. The abscess itself had made a second opening into the intestines and had evacuated itself at intervals. The appendix was cut off and the intestinal opening sutured. Ten days later symptoms of intestinal occlusion declared themselves and bands of adhesion were formed, which had evidently been formed during the old attack of appendicitis. These were cut and recovery took place without further injury. The third case was a colored boy of eighteen who presented no tumor and but slight fever, with considerable pain and marked tenderness. A small abscess was evacuated. Three days later the patient began to have chills. Malarial organisms could not be found in the blood. Careful examination showed that there was some consolidation of the right lower lobe. There was evidently suppuration in the upper part of the abdomen. Signs of an abscess were found in the neighborhood of the liver just below the floating ribs. Incision disclosed quantities of broken-down lymphatics, lying near the hepatic flexure of the colon in front of the right kidney. Pyemia supervened and death took place in ten days. No post-mortem could be obtained.

Drainage.—Wherever suppuration has taken place Dr. Johnson thinks that a glass drainage-tube should be inserted and retained for forty-eight hours. One peculiar post-operative complication came as the result of the use of glass tubes. An enormously stout man was operated on for an appendiceal abscess and a glass tube was inserted into his pelvis and allowed to remain. In all nine inches of tubing were used. Some hours after the operation the patient became delirious and restless and while turning over the tube was broken off. A portion of the broken end seems to have cut an artery for symptoms of shock from internal hemorrhage began to manifest themselves. It proved a very difficult matter to get the broken tube out. It was only accomplished finally by passing a tube of larger size over the broken tube within the abdomen.

Drying of the Intestines.—Dr. John A. Wyeth said that he thoroughly approves of Dr. Johnson's objections to evisceration. Exposure of the intestines to the cool outer air produces not only paralysis of the intestines, but shock. There should be less routine handling of the intestines during an abdominal operation than is the custom at present. With regard to purulent peritonitis, if it is of the extremely offensive variety, Dr. Wyeth considers that irrigation with hot salt solution gives the best hope. A good force of water up to eight or ten feet above the patient should be employed and the water should come

away clear before the flushing is stopped. It is very important after this to thoroughly dry out the peritoneal cavity. No trace of moisture should be left. Along and behind the ascending colon there may remain traces of septic material that the flushing has not taken out and these parts should be wiped thoroughly. For drainage Dr. Wyeth prefers a wick of gauze to a glass tube. A valuable point in septic peritonitis in women is to drain through Douglas' pouch.

Peritonitic Virulence.—Dr. Fessenden Otis said that the virulence of peritonitis differs very much in different cases. In a recent case he saw pus covering the whole of the peritoneum and a fatal ending seemed inevitable, yet practically no septic symptoms developed and the patient recovered. In appendiceal abscesses without odor there may be question of a broken-down gumma. This is important because specific treatment will do much to relieve after effects. In retroperitoneal abscesses in women it is well to bear in mind that they may be opened very satisfactorily through the vagina.

Normal Salines vs. Drying.—Dr. Wiener said that the question of saline irrigation or of dry sponging when purulent peritonitis exists is very important. Both methods have been tried at Mt. Sinai Hospital with excellent results. Every one admits that it is important to dry thoroughly. The question is, shall we irrigate beforehand? There are those who say that irrigation is unnecessary.

Prognosis.—The prognosis of a case with purulent peritonitis is not to be judged from the external appearances of the peritoneum, nor from the amount of pus, nor from its odor. The worst looking cases of peritonitis, in which there is a very fecal odor, are due to the bacillus coli communis, yet these cases have nearly always the best prognosis. The next best prognosis exists in cases due to staphylococci. Streptococci cases give the worst prognosis. A very mild looking peritonitis due to streptococci may prove rapidly fatal. Subphrenic abscess is always peritonitic in origin. The infection runs up along the lymphatics of the colon, but does not necessarily occur on the right side. Such abscesses to the left of the median line are not rare. In a recent case a perinephritic abscess from this cause occurred on the left.

Intravenous Salines.—Dr. Morris said that intravenous injection of physiological salt solution is of distinct benefit after purulent peritonitis. It raises blood pressure, dilutes toxins that are present in the circulation and causes their more rapid elimination. The intravenous injection may be repeated the next day if the symptoms continue severe. The most odoriferous cases of peritonitis are due to the colon bacillus. This micro-organism causes the formation of mercaptan, which has a vile odor. These stinking cases, however, have not as bad a prognosis as those due to the streptococcus, which may have very little odor. In general the odor enables us to distinguish between colon and streptococcus peri-

tonitis. The color of the purulent exudate may be of some help in distinguishing staphylococcal peritonitis. One may with Clark trust to the peritoneum for its own drainage if we aid Nature by the presence of hygroscopic salts in the lumen of the bowel. With reference to drainage by means of gauze it must be remembered that even a healthy man does not stand gauze in his peritoneum well and that we must not subject weak men to its irritating presence any more than is absolutely necessary.

Cleansing Technique.—Dr. Johnson in closing the discussion said that patients who are submitted to abdominal operations should be subjected to as little violence as possible. The more irritated the peritoneum, the readier is the septic reaction and the more paresis and shock result. Cleansing of the intestines and of the peritoneal cavity is of extreme importance, but it must be done by gentle sopping and not by rubbing of the intestines. Drainage through the vagina is important. Vaginal drainage has given such excellent results to one good operator that he suggests rectal drainage for men whenever possible. It seems clear that the individual's resistance to infection is a much more important element in the prognosis of a case than the special variety of microbe that may be at work. Alcoholic and nephritic cases do very poorly. The very stout do not do well and besides there are mechanical difficulties in the way of drainage. The very lean are apt to be of low resistive vitality.

Abdominal Section.—Dr. Howard Collins said that as far as possible the incision for abdominal section should leave the abdominal wall intact for its functions. For this it is especially important not to interfere with the nerve-supply of the muscles that make up the abdominal wall. These nerves emerge from below the ribs, and traverse the tissues of the abdominal wall on the way to supply the different muscles. The lowest nerve emerges from the tip of the last rib and runs along a direct line, the prolongation of which would touch the spine of the pubis on the opposite side. The eleventh nerve comes from the eleventh rib and runs along a line that if prolonged would reach the middle of Poupart's ligament also on the opposite side. The tenth nerve emerges about one inch above the eleventh rib and runs in the same way toward the opposite iliac spine. The course of the ninth nerve is not so definite, but it is situated so high up in the abdominal wall that it is not as liable to be injured as are the others. It is important not to destroy more than one nerve-trunk. If muscles are split instead of being cut, nerves are usually not sectioned. When incisions are made high in the abdominal wall, as for gall-bladder operations, it is not so easy to avoid cutting these nerves, but the intra-abdominal pressure is much less in the upper abdomen and hernia is not liable to occur.

Clavicular Crutch.—Dr. Carter S. Cole of New York presented a splint for fractures of the clavicle. A pad for counter pressure fits over the

scapula behind and the pressure on the clavicle itself can be very well directed. While wearing the splint the patient's arm may be allowed to swing freely at the side. Dr. Cole has used this splint in a number of cases now in hospital practice and it has given very good satisfaction.

Large Intestinal Excision.—Dr. Manley presented a specimen of twenty-nine inches of gangrenous intestine which had been removed from a man suffering from strangulated hernia. The patient, a man of thirty, recovered and, though the operation was done four years ago, symptoms that point to any disturbance of intestinal function have not arisen. For excision of the intestines, Dr. Manley prefers a sloping section because this allows of much better circulation than if the section is made at right angles to the lumen of the intestine. When lateral anastomosis is indicated the opening should not be made in the raphe of the intestine, which is poorly supplied with blood, but midway between the raphe and the mesentery. Better than buttons and plates and hobbins for intestinal anastomosis is some form of suture—the Connell method preferably.

BOOK REVIEWS.

A Manual of Personal Hygiene. Edited by WALTER L. PYLE, A.M., M.D., Assistant Surgeon to Wills' Eye Hospital, and having as contributors such well-known specialists as J. W. COURTNEY, M.D., G. H. FOX, M.D., E. FLETCHER INGALS, M.D., WALTER L. PYLE, M.D., B. A. RANDALL, M.D., G. M. STEWART, M.D. (Edin.), and CHARLES G. STOCKTON, M.D. 8vo., pp. 344. Illustrated. Philadelphia: W. B. Saunders & Co., 1900.

A PHYSICIAN'S success in the treatment of a patient is oftentimes largely due to the attention which is shown to the personal comforts and hygiene of the sufferer. It is difficult to appreciate how much importance is usually attached to a physician's advice relative to the proper method of caring for the various organs and parts of the body in health and disease. A suitable answer to such questions, though always expected of the general practitioner, often necessitates considerable specialized knowledge. The above book has been interestingly written by a number of eminent specialists, but technical phraseology has been avoided, as far as possible, in order that the manual may be of value to all those who are desirous of "an exposition of proper living upon a physiological basis." The chapters upon eating, drinking, breathing, exercise, etc., are full of most valuable suggestions, and a careful perusal of this work would afford many a sufficient knowledge of prophylaxis to obviate the necessity of frequently summoning the family physician in those really unimportant cases which absorb so much of his energy and patience.

BOOKS RECEIVED.

MEDICAL DISEASES OF INFANCY AND CHILDHOOD. By Dr. Dawson Williams. Second Edition Revised by Dr. F. P. Churchill. 8vo., 538 pages. Illustrated. Lea Brothers & Co., Philadelphia and New York. \$3.50.

DIE ROLLE DER SCHILDDRUESE BEI STILLSTAND UND HEMMUNG DES WACHSTUMS UND DER ENTWICKLUNG UND DER CHRONISCHE GUTARTIGE HYPOTHYREOIDISMUS. Von Dr. E. Hertoghe. Deutsch von Dr. J. H. Spiegelberg. 8vo., 69 pages. Illustrated. J. F. Lehmann, Munich. 2 marks.

DIE BEGUTACHTUNG DER ERWERBSFAEHIGKEIT NACH UNFALLVERLETZUNGEN DES SEHORGANS. Von Dr. E. Ammann. 8vo., 80 pages. J. F. Lehmann, Munich. 2 marks.

PATHOLOGY AND MORBID ANATOMY. By Dr. T. Henry Green. Ninth American Edition by Dr. W. Martin. 8vo., 584 pages. Illustrated. Lea Brothers & Co., Philadelphia and New York. \$3.25.

LABORATORY DIRECTIONS FOR BEGINNERS OF BACTERIOLOGY. By Dr. Veranus A. Moore. Second Edition. Demi 8vo., 140 pages. Illustrated. Ginn & Company, Boston. \$1.05.

FORTY-FIFTH ANNUAL REPORT UPON THE BIRTHS, MARRIAGES AND DEATHS IN CITY OF PROVIDENCE, 1899. Dr. Charles V. Chapin, City Registrar.

DIE ENTWICKELUNG DER BIOLOGIE IM 19 JAHRHUNDERT. Dr. Oscar Hertwig. 8vo., 32 pages. Gustav Fischer, Jena. One mark.

DIE ENTWICKELUNG DER INNEREN MEDIZIN MIT HYGIENE UND BAKTERIOLOGIE IM 19 JAHRHUNDERT. Dr. B. Naunyn. 8vo., 21 pages. Gustav Fischer, Jena. One mark.

PRACTICAL GYNECOLOGY. A Comprehensive Text-Book for Students and Physicians. By Dr. E. E. Montgomery. 8vo., 810 pages. Illustrated. P. Blakiston's Son & Co., Philadelphia. \$5.00.

NOTES ON THE MOSQUITOES OF THE UNITED STATES. By L. O. Howard, Ph.D. 8vo., 70 pages. Illustrated. Washington, D. C.

A BOOK OF DETACHABLE DIET LISTS. By Dr. J. B. Thomas. Second Edition. W. B. Saunders & Company, Philadelphia. \$1.25.

A TEXT-BOOK OF THE DISEASES OF WOMEN. By Dr. H. J. Garrigues. Third Edition. Revised. 8vo., 756 pages. Illustrated. W. B. Saunders & Company, Philadelphia. \$4.50.

A MANUAL OF SYPHILIS AND THE VENEREAL DISEASES. By Dr. James N. Hyde and F. H. Montgomery. Second Edition. Revised and Enlarged. 8vo., 594 pages. Illustrated. W. B. Saunders & Company, Philadelphia. \$4.00.

RHINOLOGY, LARYNGOLOGY AND OTOTOLOGY AND THEIR SIGNIFICANCE IN GENERAL MEDICINE. By Dr. E. P. Friedrich. Translated by Dr. F. H. Curtis. 8vo., 348 pages. Illustrated. W. B. Saunders & Company, Philadelphia and London. \$2.50.

A TEXT-BOOK UPON THE PATHOGENIC BACTERIA FOR STUDENTS OF MEDICINE AND PHYSICIANS. By Dr. J. McFarland. Third Edition, Revised and Enlarged. 8vo., 621 pages. Illustrated. W. B. Saunders & Company, Philadelphia. \$3.25.

BACTERIOLOGY AND SURGICAL TECHNIQUE FOR NURSES. By Emily M. A. Stoney. Demi 8vo., 190 pages. Illustrated. W. B. Saunders & Company, Philadelphia. \$1.25.

PRACTICAL MANUAL OF DISEASES OF WOMEN AND UTERINE THERAPEUTICS. By Dr. H. Macnaughton-Jones. Eighth Edition. 8vo., 947 pages. Illustrated. William Wood & Company, New York.